RATING SUMMARY – Western Washington

Name of wetland (or	ID #): <u>WFW-05</u>					Date of site visit:	10/23/2019	
Rated by A. Weiss		Tr	ained by E	cology? 🗸]Yes 🗌 No	Date of training	Oct. 2020	
HGM Class used for rating Riverine Wetland has multiple HGM classes? Yes								
NOTE: Form is not complete with out the figures requested (<i>figures can be combined</i>). Source of base aerial photo/map ESRI / Google Earth Pro								
OVERALL WETLA	ND CATEGORY	II	(based on	functions	⊡or specia	al characteristics)	
1. Category of w		n FUNCTION 1 - Total score			Г	Score for each		
		II - Total score				function based		
		III - Total sco		9		on three		
	Category	IV - Total scor	re = 9 - 15			ratings		
				1		(order of ratings		
FUNCTION	Improving	Hydrologic	Habitat			is not		
	Water Quality					important)		
	List ap	propriate rating	g (H, M, L)					
Site Potential	М	М	М			9 = H, H, H		
Landscape Potential	Н	Н	L			8 = H, H, M		
Value	L	Н	Н	Total		7 = H, H, L		
Score Based on	C	0	c	20		7 = H, M, M		
Ratings	6	8	6	20		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	x

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?

- 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
- ✓ NO Saltwater Tidal Fringe (Estuarine) If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands. If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be used to score functions for estuarine wetlands.

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

- ☑ NO go to 3
 If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.
- 3. Does the entire wetland unit meet all of the following criteria?
 - ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ☑ NO go to 4

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

- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (slope can be very gradual),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - □ The water leaves the wetland **without being impounded**.
 - ☑ NO go to 5

□ YES - The wetland class is Slope

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

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

- ☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- $\hfill\square$ The overbank flooding occurs at least once every 2 years.
- 🗌 NO go to 6

✓ YES - The wetland class is Riverine

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

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

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.

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:

RIVERINE AND FRESHWATER TIDAL FRINGE	WETLANDS	
Water Quality Functions - Indicators that the site functions to impr	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedin flooding event:	nents during a	
Depressions cover $> \frac{3}{4}$ area of wetland	points = 8	2
Depressions cover > $\frac{1}{2}$ area of wetland	points = 4	2
Depressions present but cover < $\frac{1}{2}$ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, classes)	not Cowardin	
Trees or shrubs $> 2/3$ area of the wetland	points = 8	
\Box Trees or shrubs > $^{1}/_{3}$ area of the wetland	points = 6	8
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > $^{1}/_{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland	points $= 0$	
Total for R 1 Add the points in	the boxes above	10

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

ter quality function of the site?	
GA? Yes = 2 No =	0 2
	0 1
	0
	0
tland that are	1
Yes = 1 No =	0
Add the points in the boxes abov	e 4

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L Record the rating on the first page

R 3.0. Is the water quality improvement provided by the site valuable to societ	/?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1	No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients toxics, or pathogens?	, Yes = 1	No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important fo maintaining water quality? (<i>answer YES if there is a TMDL for the drainage in which the unit is found</i>)	r Yes = 2	No = 0	0
Total for R 3 Add the point	s in the boxe	es above	0
Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$	Record the	rating on	the first page

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

RIVERINE AND FRESHWATER TIDAL FRINGE	WETLANDS	
Hydrologic Functions - Indicators that site functions to reduce floodin	ng and stream erosior	า
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 flo of the stream or river channel (distance between banks). Calculate the ratio: (ave 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>Tre</i> debris as forest or shrub. Choose the points appropriate for the best description (have >90% cover at person height. These are <u>NOT Cowardin</u> classes).	• •	-
Forest or shrub for $> 1/3$ area OR emergent plants $> 2/3$ area	points $= 7$	1
Forest or shrub for $> 1/_{10}$ area OR emergent plants $> 1/_3$ area	points $= 4$	
Plants do not meet above criteria	points $= 0$	
Total for R 4 Add the points in	n the boxes above	9

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

Retire of Londonna Retartial If accurates 2. II. 4 and M. 0. I. Descuring the retire on the first new				
Total for R 5	Add the points in the boxe	s above	3	
R 5.3 Is the up-gradient stream or river controlled by dams?	Yes = 0	No = 1	1	
R 5.2. Does the up-gradient watershed include a UGA or incorp	orated area? Yes = 1	No = 0	1	
R 5.1. Is the stream or river adjacent to the wetland downcut?	Yes = 0	No = 1	1	
R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?				

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

R 6.0. Are the hydrologic functions provided by the site valuable to societ	y?	
R 6.1. Distance to the nearest areas downstream that have flooding prob	lems?	
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	2
Surface flooding problems are in a sub-basin farther down-grad No flooding problems anywhere downstream	lient points = 1 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	2
Pating of Value If score is: $\sqrt{2} - 4 - 4$	Pocord the rating on	the first near

Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$

Record the rating on the first page

Wetland name or number WFW-05

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.)
H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 Emergent 3 structures: points = 2 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points - 1 Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: 1 structure: points = 0 If the unit has a Forested class, check if: 1 structure: points = 0 If the unit has a Forested class, check if: 1 structure: points 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 Seasonally flooded or inundated 3 types present: points = 2)
Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. □ Aquatic bed 4 structures or more: points = 4 0 □ Emergent 3 structures: points = 2 0 □ Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points - 1 0 □ Forested (areas where trees have > 30% cover) 1 structure: points = 0 0 If the unit has a Forested class, check if: 1 structure: points = 0 0 If the unit has a Forested class, check if: 1 structure: points = 0 0 If the unit has a Forested class, check if: 1 structure: points = 0 0 If the unit has a Forested class, check if: 1 structure: points = 0 0 If the unit has a Forested class, check if: 1 structure: points = 0 0 If the unit has a Forested class, check if: 1 structure: points = 0 0 If the unit has a Forested class, check if: 1 structure: points = 0 0 If the unit has a Forested class, check if: 1 structure: points = 0 0 Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more t)
 □ Emergent □ Scrub-shrub (areas where shrubs have > 30% cover) □ Structures: points = 1 □ Forested (areas where trees have > 30% cover) □ 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 ↓ Or more types present: points = 3 □ Seasonally flooded or inundated)
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 (<i>see text for descriptions of hydroperiods</i>). Permanently flooded or inundated	
Seasonally flooded or inundated 3 types present: points = 2	
 ☐ Saturated only ☐ Permanently flowing stream or river in, or adjacent to, the wetland ☑ Seasonally flowing stream in, or adjacent to, the wetland 	2
Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species 2	
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	1
If you counted:> 19 speciespoints = 25 - 19 speciespoints = 1< 5 species	
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.	
	1
None = 0 pointsLow = 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 checks is the number of points.</i> ☑ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) ☑ Standing snags (dbh > 4 in) within the wetland ☑ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) □ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) ☑ 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 (<i>see H 1.1 for list of strata</i>) 	4
Total for H 1 Add the points in the boxes above	8

I total for H 1Add the pointsRating of Site Potential If Score is: \square 15 - 18 = H \bigcirc 7 - 14 = M \square 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:		
2.8 % undisturbed habitat + (1.4 % moderate & l	ow intensity land uses / 2) = 3.5%	
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	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
20.1 % undisturbed habitat + (18.8 % moderate & l	ow intensity land uses / 2) = 29.5%	
		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: \Box 4 - 6 = H \Box 1 - 3 = M \Box < 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 polic	cies? 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 specified		2
It is a Wetland of High Conservation Value as determined by the second secon	ne	2
Department of Natural Resources		
It has been categorized as an important habitat site in a local of	or	
regional comprehensive plan, in a Shoreline Master Plan, or in	а	
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 ValueIf Score is: $\Box 2 = H$ $\Box 1 = M$ $\Box 0 = L$ Ref	ecord the rating on	the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- 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
<i></i>		
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
50 1.0.1	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	
	\square Yes - Go to SC 1.1 \square 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	
	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	
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	
0000	□ 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?	
SC 3.0.	□ Yes = Category I □ No = Not WHCV	
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,	
00 0	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3	
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?	
	\Box Yes - Go to SC 3.3 \Box 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 <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	
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)	
	\Box Yes - Go to SC 5.1 \Box 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).	
	grazed or un-mowed grassland.	
	The wetland is larger than $\frac{1}{10}$ 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 Wes - Go to SC 6.1 Wes - Go to SC 6.1 Wes - Go to SC 6.1	
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	
	y of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form		

RATING SUMMARY – Western Washington

Name of wetland (or ID #):	WFW-05	Date of site visit:	10/23/2019
Rated by A. Weiss	Trained by Ecology? ☑ Yes □No	Date of training	Oct. 2020
HGM Class used for rating	Riverine & Fresh Water Tidal Wetland has multiple	e HGM classes? 🗌	Yes 🔽 No
	ot complete with out the figures requested (figures can of base aerial photo/map_ESRI / Google Earth Pro	be combined).	
OVERALL WETLAND CA	TEGORY II (based on functions ☑ or specia	I characteristics)

1. Category of wetland based on FUNCTIONS

	Category I - Total score = 23 - 27
Х	Category II - Total score = 20 - 22
	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	(H, M, L)	
Site Potential	М	М	М	
Landscape Potential	Н	Н	L	
Value	L	Н	Н	Tota
Score Based on Ratings	6	8	6	20

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	x

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (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 (<i>can be added to another figure</i>)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?

- 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
- ✓ NO Saltwater Tidal Fringe (Estuarine) If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands. If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be used to score functions for estuarine wetlands.

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

- ✓ NO go to 3
 ✓ YES The wetland class is Flats
 If your wetland can be classified as a Flats wetland, use the form for Depressional wetlands.
- 3. Does the entire wetland unit **meet all** of the following criteria?
 - The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - NO go to 4

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

- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (*slope can be very gradual*),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - \Box The water leaves the wetland without being impounded.
 - 🗹 NO go to 5

YES - The wetland class is **Slope**

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

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.
- □ NO go to 6

✓ **YES** - The wetland class is **Riverine**

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

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

VO - go to 7 VES - 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.

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:

RIVERINE AND FRESHWATER TIDAL FRINGE	WETLANDS	
Water Quality Functions - Indicators that the site functions to impr	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedir flooding event:	nents during a	
Depressions cover $> \frac{3}{4}$ area of wetland	points = 8	2
Depressions cover > $\frac{1}{2}$ area of wetland	points = 4	Z
Depressions present but cover < 1/2 area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height classes)	, not Cowardin	
Trees or shrubs $> {}^{2}/_{3}$ area of the wetland	points = 8	
\Box Trees or shrubs > $\frac{1}{_3}$ area of the wetland	points = 6	8
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > $\frac{1}{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland	points = 0	
Total for R 1 Add the points in	the boxes above	10

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

R 2.0. Does the landscape have the potential to support the water qua	lity function of the s	ite?	
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2	No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1	No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1	No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses the generate pollutants?	at Yes = 1	No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland th not listed in questions R 2.1 - R 2.4?	at are		1
Other Sources prximity to I-5 offramp	Yes = 1	No = 0	
Total for R 2 Add th	ne points in the boxe	s above	5

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L *Record the rating on the first page*

R 3.0. Is the water quality improvement provided by the site valuab	le to society?	
R 3.1. Is the wetland along a stream or river that is on the 303(d) list tributary that drains to one within 1 mi?	st or on a Yes = 1 No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	or Yes = 1 No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as in for maintaining water quality? (<i>answer YES if there is a TMDL for th</i> <i>drainage in which the unit is found</i>)	•	0
Total for R 3 Ad	d the points in the boxes above	0
Rating of Value If score is: 2 - 4 = H 1 = M 2 - 4 = H	Record the rating on	the first page

RIVERINE AND FRESHWATER TIDAL FRINGE W	ETLANDS	
Hydrologic Functions - Indicators that site functions to reduce flooding a	nd stream erosio	on
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 a of the stream or river channel (distance between banks). Calculate the ratio: (average 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 I</i> debris as forest or shrub. Choose the points appropriate for the best description (pol to have >90% cover at person height. These are <u>NOT Cowardin</u> classes).		-
Forest or shrub for > $\frac{1}{3}$ area OR emergent plants > $\frac{2}{3}$ area	points = 7	7
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	e 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

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 incor	oorated area? Yes = 1	No = 0	1
R 5.3 Is the up-gradient stream or river controlled by dams?	Yes = 0	No = 1	1
Total for R 5	Add the points in the boxe	s above	3

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

R 6.0. Are the hydrologic functions provided by the site valuable to society?	
R 6.1. Distance to the nearest areas downstream that have flooding problems?	
Choose the description that best fits the site.	
The sub-basin immediately 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
Surface flooding problems are in a sub-basin farther down-gradient points = No flooding problems anywhere downstream points =	
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?Yes = 2No =	0 0
Total for R 6 Add the points in the boxes above	/e 2
Add the points in the boxes above Add the points in the boxes above Add the points in the boxes above	

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

aial habitat fa - **4**.

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)	
\checkmark 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)	4
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	8

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 hat	pitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts		
Calculate:		
2.8 % undisturbed habitat + (% moderate &	low intensity land uses / 2) = 3.5%	
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	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
20.1 % undisturbed habitat + (18.8 % moderate &	low intensity land uses / 2) = 29.5%	
		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 </

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 plan	nt	
or animal on the state or federal lists)		
\Box It is mapped as a location for an individual WDFW priority species		2
\square 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	
Rating of Value If Score is: Image: 2 = H Image: 1 = M Image: 0 = L Record	the rating on	the first page

WDFW Priority Habitats

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

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

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

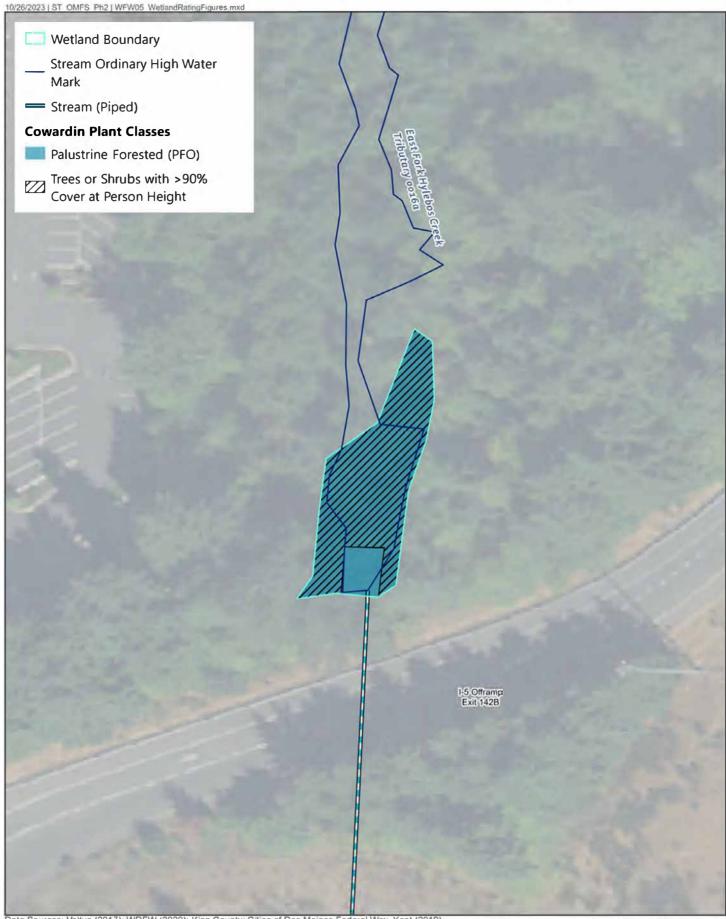
- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: <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 (*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	Type	Category
Check of	f 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	
SC 1.2.		
	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)	
	5	
	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 I	
SC 2 0 1	Wetlands of High Conservation Value (WHCV)	
SC 2.1.		
00 2.1.	of Wetlands of High Conservation Value?	
	□ Yes - Go to SC 2.2 □ No - Go to SC 2.3	
SC 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?	
	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	Yes - Contact WNHP/WDNR and to SC 2.4 ON 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	
0004	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?	
SC 3.2.	\Box Yes - Go to SC 3.3 \Box No - Go to 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?	
	$\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No = Is not a bog}$	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground	
00 0.0.	level, AND at least a 30% cover of plant species listed in Table 4?	
	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No - Go to SC 3.4}$	
	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	

66.4.0	Forested Wetlands	
50 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? 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.	
	200 years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	\Box Vec = Octonom I. \Box Ne = Net o formation drawthin continu	
00.5.0.1	☐ Yes = Category I	
SC 5.0.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to</i>	
	be measured near the bottom)	
	\Box Yes - Go to SC 5.1 \Box 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 / 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 is larger than $\frac{1}{10}$ ac (4350 ft ²)	
	☐ Yes = Category I	
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	
	\Box Yes - Go to SC 6.1 \Box No = Not an interdunal wetland for rating	
SC 6.1.		
	(rates H,H,H or H,H,M for the three aspects of function)?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 6.2}$	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
0.2.	$\Box \text{ Yes} = \text{Category II} \Box \text{ No - Go to SC 6.3}$	
60.62	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and $1 = 0.1$	
SC 6.3.	1 ac?	
	□ Yes = Category III □ No = Category IV	
	y of wetland based on Special Characteristics	
If you an	swered No for all types, enter "Not Applicable" on Summary Form	

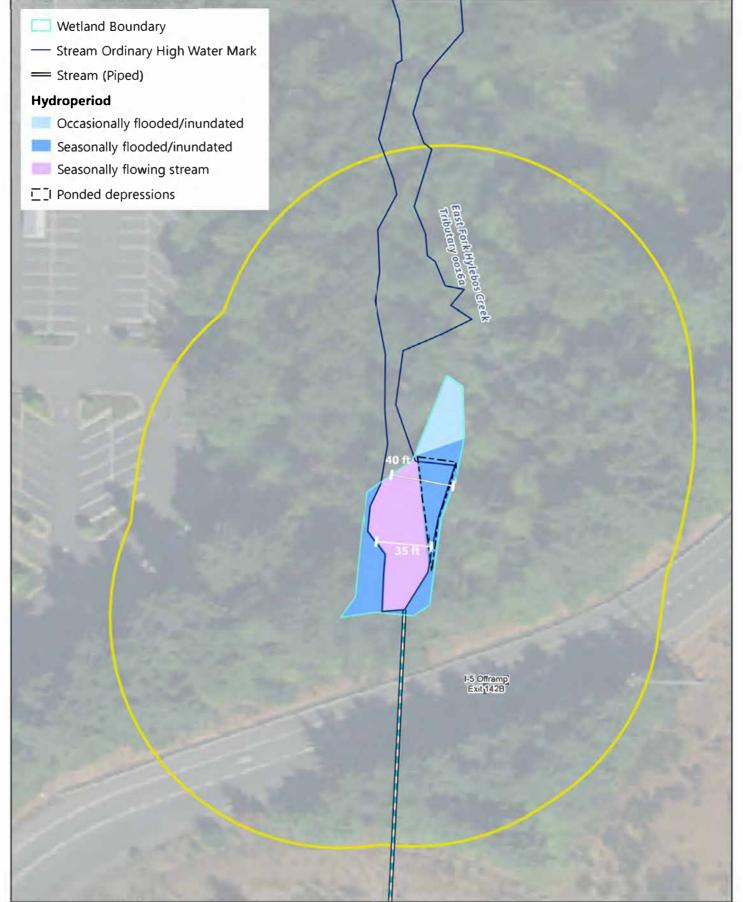


Data Sources: Valtus (2017), WDFW (2020); King County, Cities of Des Moines, Federal Way, Kent (2019).

80 Feet

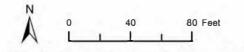
40

Wetland WFW-05 Cowardin Plant Classes and Cover

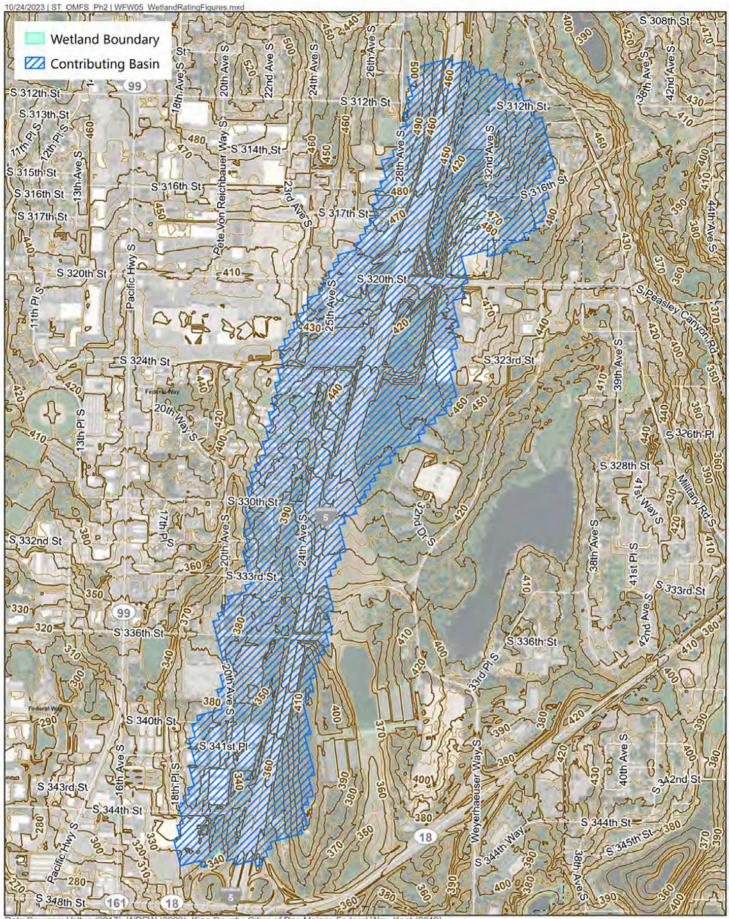


Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

Wetland WFW-05 Hydroperiods



10/26/2023 | ST OMFS Ph2 | WFW05 WetlandRatingFigures.mxd



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

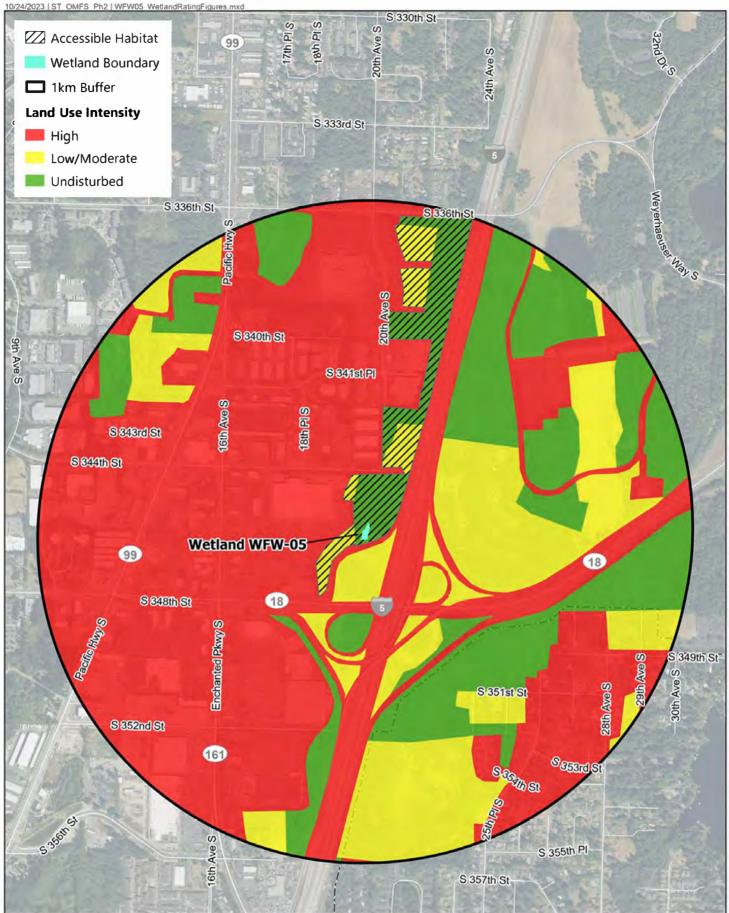
2,000 Feet

1,000

0

A

Wetland WFW-05 Contributing Basin

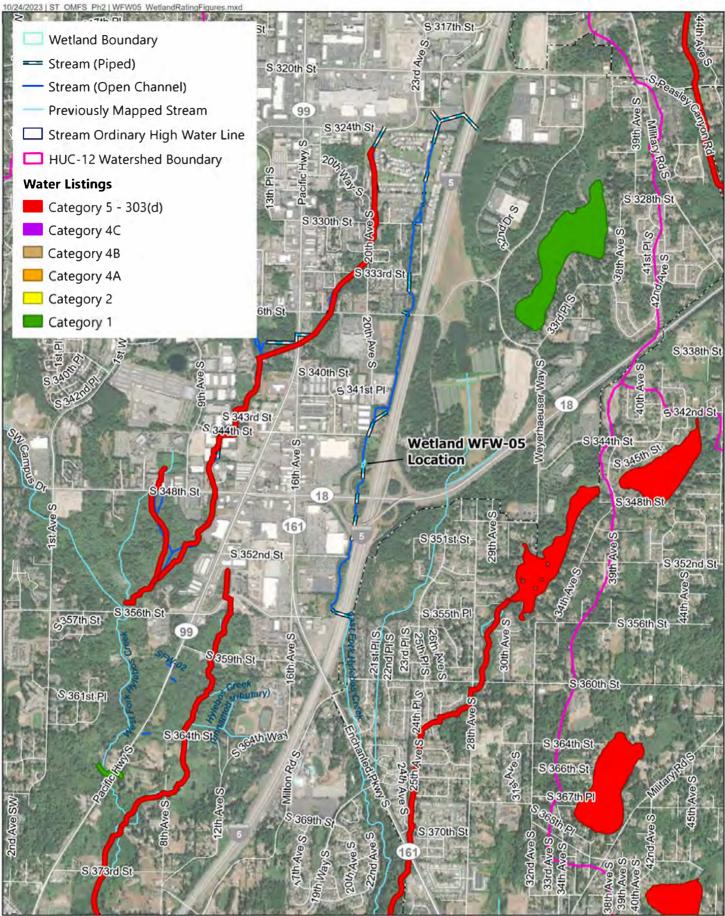


Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

750

N

Wetland WFW-05 Land Use Intensity

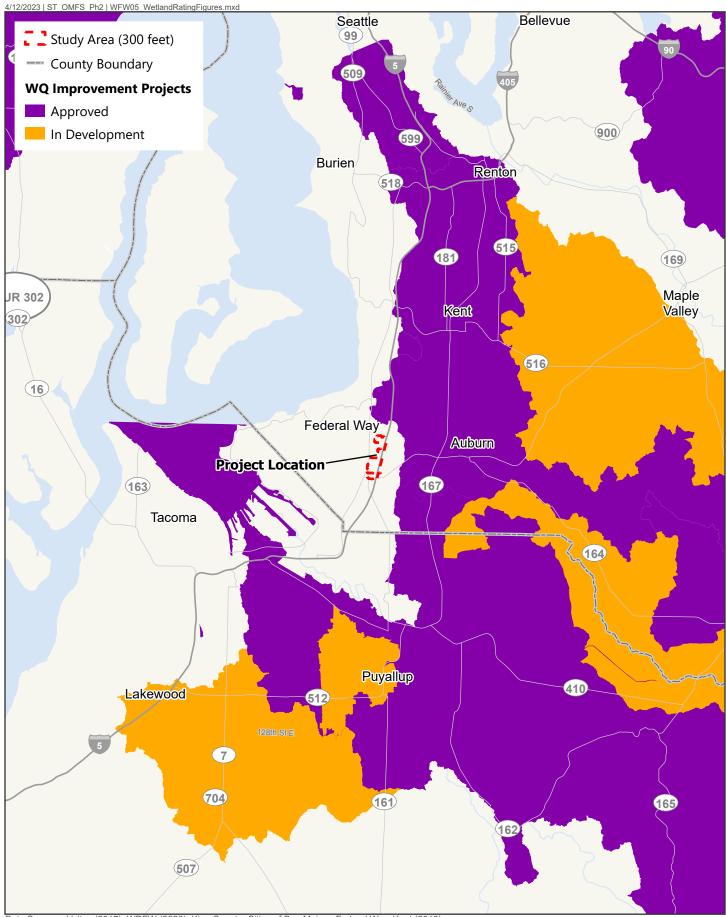


Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

3,000 Feet

1,500

Wetland WFW-05 303(d) Listed Waters



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

5 Miles

Ν

0

2.5

Wetland WFW-05 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or	ID #):	WFW-06				Date of site visit:	10/23/2019
Rated by T. Story, re	evised by	y A. Weiss	Tr	ained by E	cology? 🗌 Yes 🗌 No	Date of training	Oct. 2020
HGM Class used for	r rating	Slope			Wetland has multip	le HGM classes?	Yes ⊡No
					equested (<i>figures car</i> ogle Earth Pro	n be combined).	
OVERALL WETLA	ND CAT	EGORY	III	(based on	functions	al characteristics 🏾)	I
1. Category of w	vetland	based on	FUNCTION	S			
		Category I	- Total score	= 23 - 27		Score for each	
		Category I	I - Total score	e = 20 - 22		function based	
	Х	Category I	II - Total scor	e = 16 - 19		on three	
		Category I	V - Total scor	e = 9 - 15		ratings	
						(order of ratings	
	Imp	roving	Hydrologic	Habitat		is not	
FUNCTION	•	Quality				important)	
		List app	ropriate rating	g (H, M, L)			

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	L	L	L	
Landscape Potential	М	М	L	
Value	М	Н	Н	Tota
Score Based on Ratings	5	6	5	16

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
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 levels in the entire unit usually controlled by tides except during floods?

- 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
- □ NO Saltwater Tidal Fringe (Estuarine) □ YES Freshwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

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

- ☑ NO go to 3
 If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.
- 3. Does the entire wetland unit meet all of the following criteria?
 - □ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ☑ NO go to 4

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

- 4. Does the entire wetland unit meet all of the following criteria?
 - ☑ The wetland is on a slope (slope can be very gradual),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - $\hdown The water leaves the wetland without being impounded.$
 - □ NO go to 5

☑ YES - The wetland class is Slope

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

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

- ☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- $\hfill\square$ The overbank flooding occurs at least once every 2 years.
- ☑ NO go to 6

□ YES - The wetland class is Riverine

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

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

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.

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

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

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

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

SLOPE WETLANDS		
Water Quality Functions - Indicators that the site functions to improve water quality		
S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance)		
Slope is 1% or less points = 3	1	
Slope is > 1% - 2% points = 2	I	
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		
(use NRCS definitions): $Yes = 3 No = 0$	0	
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the plants in the wetland. <i>Dense</i> <i>means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or</i> <i>mowed and plants are higher than 6 in.</i>		
Dense, uncut, herbaceous plants > 90% of the wetland area points = 6	3	
Dense, uncut, herbaceous plants > $\frac{1}{2}$ of area points = 3		
Dense, woody, plants > 1/2 of area points = 2		
Dense, uncut, herbaceous plants > ¼ of area points = 1		
Does not meet any of the criteria above for plants points = 0		
Total for S 1 Add the points in the boxes above	4	
Rating of Site Potential If score is: \Box 12 = H \Box 6 - 11 = M \Box 0 - 5 = L Record the rating on	the first page	

S 2.0. Does the landscape have the potential to support the water quality function of the site?		
S 2.1. Is > 10% of the area within 150 ft on the uphill side land uses that generate pollutants?	e of the wetland in Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the not listed in question S 2.1?	he wetland that are	1
Other Sources proximity to I-5	Yes = 1 No = 0	
Total for S 2	Add the points in the boxes above	2
Pating of Landscape Potential If score is: 1.1 - 2 - M	0 – I Pecord the rating on	the first pea

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

Record the rating on the first page

Rating of Value If score is: □ 2 - 4 = H ☑ 1 = M □ 0 = L	Record the	rating on	the first page
Total for S 3 Add the point	s in the boxe	es above	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
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? <i>At least one aquatic resource in the basin is on the 303(d) list.</i>	Yes = 1	No = 0	1
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 3.0. Is the water quality improvement provided by the site valuable to society	?		

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion		sion
S 4.0. Does the site have the potential to reduce flooding and stream erosion?		
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > $1/8$ in), or dense enough, to remain erect during surface flows.		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: $\Box 1 = M$ $\Box 0 = L$	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	1
Rating of Landscape Potential If score is: $\Box 1 = M \Box 0 = L$	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., houses or salmon redds)	points = 2	2
Surface flooding problems are in a sub-basin farther down-gradient	points $= 1$	
No flooding problems anywhere downstream	points $= 0$	
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for S 6 Add the points	in the boxes above	2
Rating of Value If score is:	Record the rating on	the first page

NOTES and FIELD OBSERVATIONS:

Wetland name or number WFW-06

0
0
0
0
0
1
0
0

Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 9 0 - 6 = L Record the rating on the first page

H 2.0. Does the landscape have the potential to support the habit	at function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts v	vetland unit).	
Calculate:		
2.8 % undisturbed habitat + (1.4 % moderate & l	ow intensity land uses / 2) = 3.5%	
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:		
26.9 % undisturbed habitat + (22.2 % moderate & le	ow intensity land uses / 2) = 38%	
		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 polici	es? 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 provides and provi	olant	
or animal on the state or federal lists)		
It is mapped as a location for an individual WDFW priority speci		2
It is a Wetland of High Conservation Value as determined by the	è	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	a la	
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 ValueIf Score is: $\Box 2 = H$ $\Box 1 = M$ $\Box 0 = L$ Ref	cord the rating on	the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- 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
<i></i>		
	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	
SC 1.1.	□ Yes - Go to SC 1.1 □ No = Not an estuarine wetland Is the wetland within a National Wildlife Refuge, National Park, National Estuary	
50 1.1.	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific	
	Reserve designated under WAC 332-30-151?	
	$\Box \text{ Yes} = \textbf{Category I} \qquad \Box \text{ No - Go to SC 1.2}$	
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	
SC 2.0.	Wetlands of High Conservation Value (WHCV)	
	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	
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.		
	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.		
	that compose 16 in or more of the first 32 in of the soil profile?	
00.00	☐ 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?	
60.2.2	$\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No} = \text{Is not a bog}$	
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?	
L	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No} = \text{Is not a bog}$	

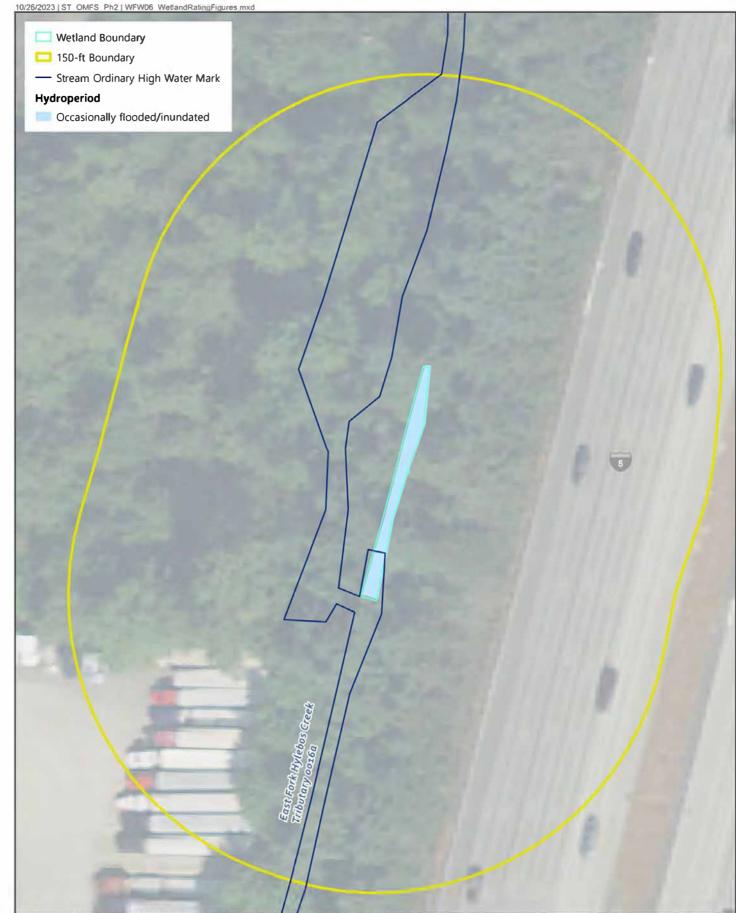
SC 4 0	Forested Wetlands	
00 4.0.1	Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	answer YES you will still need to rate the wetland based on its functions.	
	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 Vo = 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)	
	\Box Yes - Go to SC 5.1 \Box 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).	
	grazed or un-mowed grassland.	
	The wetland is larger than $\frac{1}{10}$ ac (4350 ft ²)	
80.60	□ Yes = Category I □ No = Category II	
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	
	$\Box \text{ Yes - Go to SC 6.1} \qquad \forall \text{ No} = \text{Not an interdunal wetland for rating}$	
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?	
	$\Box Yes = Category II \qquad \Box No - Go to SC 6.3$	
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	
	y of wetland based on Special Characteristics	
If you an	swered No for all types, enter "Not Applicable" on Summary Form	



60 Feet

30

Wetland WFW-06 Cowardin Plant Classes and Cover



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

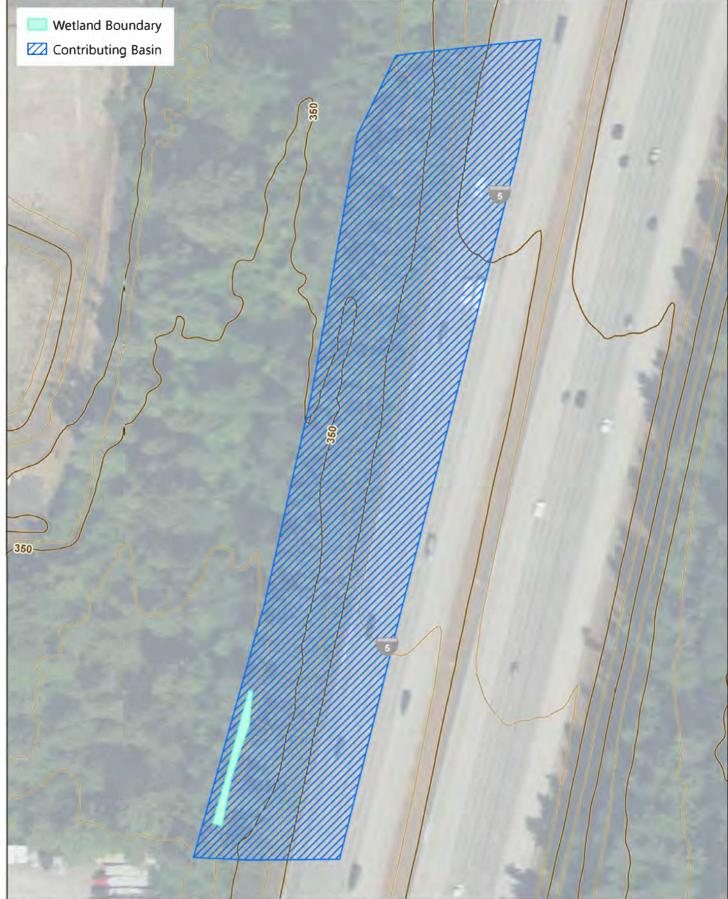
60 Feet

N

0

30

Wetland WFW-06 Hydroperiods



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

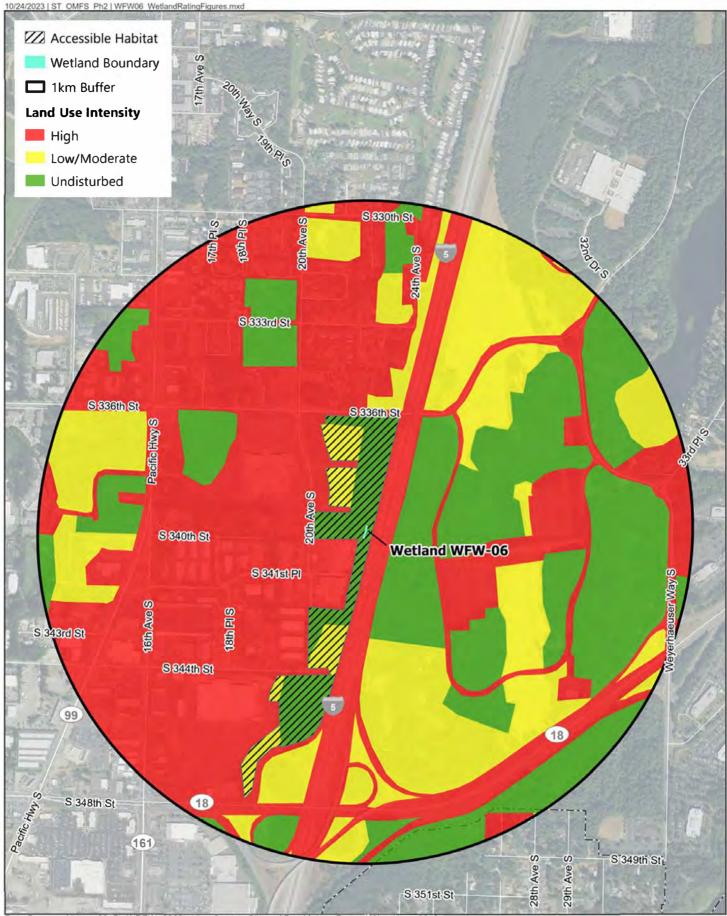
120 Feet

60

N

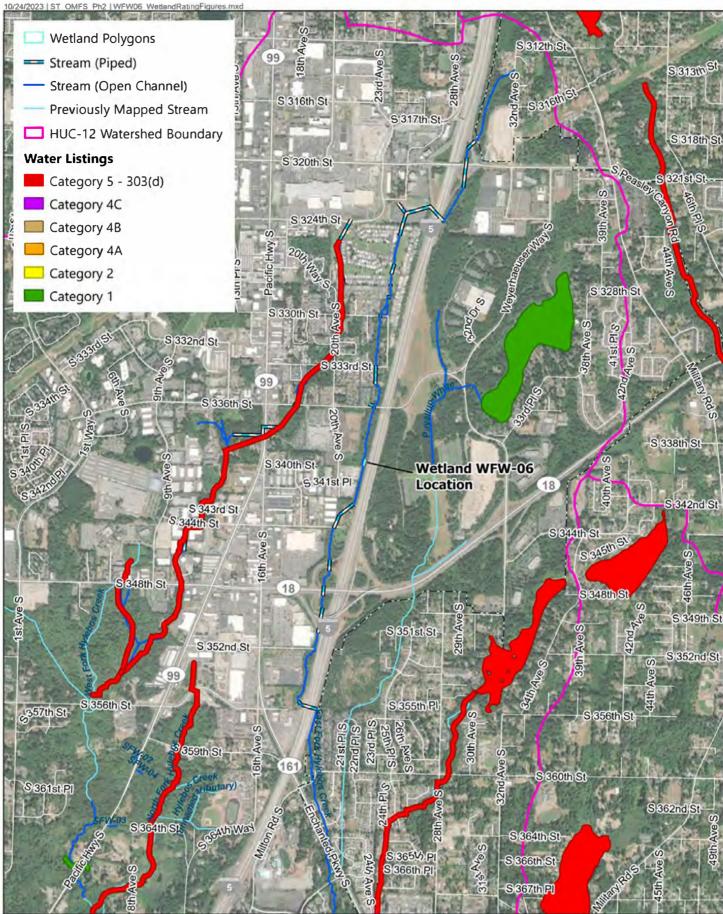
10/24/2023 ST OMFS Ph2 WFW06 WetlandRatingFigures mxd

Wetland WFW-06 Contributing Basin



N 0 750 1,500 Feet

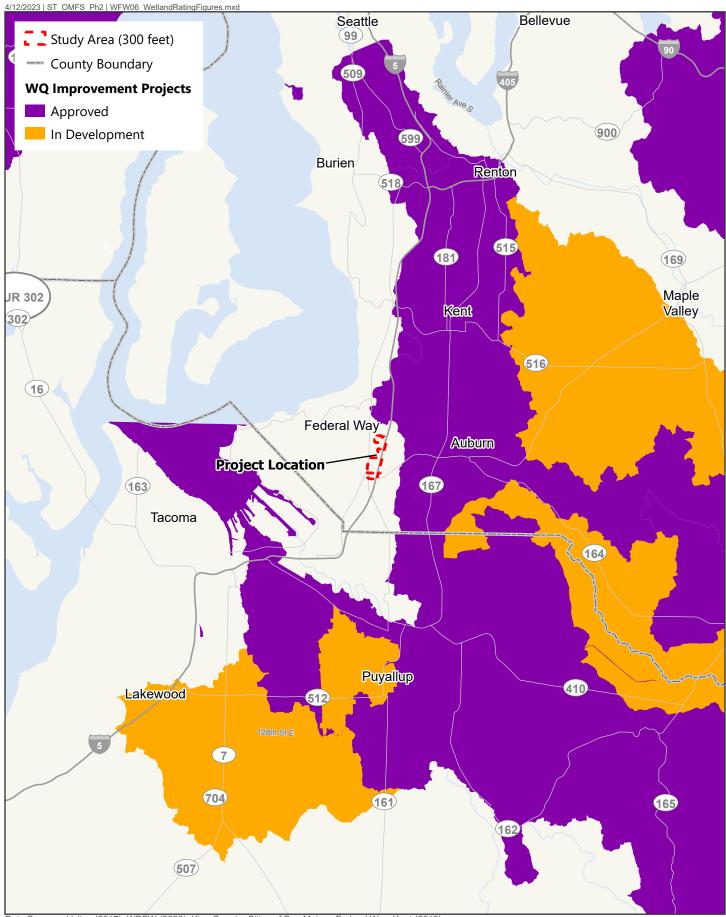
Wetland WFW-06 Land Use Intensity



3,000 Feet

1,500

Wetland WFW-06 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-06 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): WFW-07					Date of site visit:	11/6/2019
Rated by A. Thom,	S. Kreuger	Tra	ained by E	cology? 🗹]Yes 🗌 No	Date of training	Jul-18
HGM Class used fo	r rating Riverine			Wetland	has multip	le HGM classes? 🗌	Yes ⊡No
	NOTE: Form is not complete with out the figures requested (figures can be combined). Source of base aerial photo/mar ESRI / Google Earth Pro						
OVERALL WETLA	ND CATEGORY	III	(based on	functions	✓ or spec	ial characteristics)
1. Category of v	vetland based or		NS				
• •		I - Total score				Score for each	
	Category	II - Total scor	e = 20 - 22	2		function based	
	X Category	III - Total sco	re = 16 - 1	9		on three	
		IV - Total sco				ratings	
						(order of ratings	
FUNCTION	Improving	Hydrologic	Habitat			is not	
FUNCTION	Water Quality					important)	
List appropriate rating (H, M, L)				. ,			
Site Potential	М	L	L			9 = H, H, H	
Landscape Potential	Н	Н	L			8 = H, H, M	
Value	L	Н	М	Total		7 = H, H, L	
Score Based on Ratings	6	7	4	17		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	

	nust apply to the entire unit being rated. In do not apply to the entire unit being rated, you probably have a e, identify which hydrologic criteria in questions 1 - 7 apply, and go
1. Are the water levels in the entire unit us	sually controlled by tides except during floods?
☑ NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1
1.1 Is the salinity of the water during	periods of annual low flow below 0.5 ppt (parts per thousand)?
	as a Freshwater Tidal Fringe use the forms for Riverine wetlands. an Estuarine wetland and is not scored. This method cannot be
2. The entire wetland unit is flat and precip Groundwater and surface water runoff are	itation is the only source (>90%) of water to it. NOT sources of water to the unit.
✓ NO - go to 3 If your wetland can be classified	YES - The wetland class is Flats as a Flats wetland, use the form for Depressional wetlands.
	d is on the shores of a body of permanent open water (without any of the year) at least 20 ac (8 ha) in size;
☑ NO - go to 4	YES - The wetland class is Lake Fringe (Lacustrine Fringe)
	<i>can be very gradual</i>), and in one direction (unidirectional) and usually comes from seeps. flow, or in a swale without distinct banks.
☑ NO - go to 5	YES - The wetland class is Slope
•	ese type of wetlands except occasionally in very small and shallow sions are usually <3 ft diameter and less than 1 ft deep).
 5. Does the entire wetland unit meet all of ☑ The unit is in a valley, or stream from that stream or river, ☑ The overbank flooding occurs at 	channel, where it gets inundated by overbank flooding

🗌 NO - go to 6

✓ YES - The wetland class is **Riverine**

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

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

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.

Image: NO - go to 8Image: 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:

RIVERINE AND FRESHWATER TIDAL FRINGE	WETLANDS	
Water Quality Functions - Indicators that the site functions to impr	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedi flooding event:	ments during a	
Depressions cover $> 3/4$ area of wetland	points = 8	0
Depressions cover > $\frac{1}{2}$ area of wetland	points = 4	0
Depressions present but cover < $\frac{1}{2}$ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person heigh classes)	t, not Cowardin	
Trees or shrubs > $^{2}/_{3}$ area of the wetland	points = 8	
\Box Trees or shrubs > $\frac{1}{3}$ area of the wetland	points = 6	6
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > $\frac{1}{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland	points = 0	
Total for R 1 Add the points in t	the boxes above	6

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

R 2.0. Does the landscape have the potential to support the water quality	function 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 incorporated area?	Yes = 1	No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1	No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1	No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland that not listed in questions R 2.1 - R 2.4?	are		1
Other Sources golf course fertilizer	Yes = 1	No = 0	
Total for R 2 Add the po	oints in the boxe	s above	5

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L Record the rating on 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(tributary that drains to one within 1 mi?	d) list or on a Yes = 1 No = 0	0	
R 3.2. Is the wetland along a stream or river that has TMDL lim nutrients, toxics, or pathogens?	hits for Yes = 1 No = 0	0	
R 3.3. Has the site been identified in a watershed or local plan for maintaining water quality? (<i>answer YES if there is a TMDL</i> <i>drainage in which the unit is found</i>)		0	
Total for R 3	Add the points in the boxes above	0	
Rating of Value If score is: $\Box 2 - 4 = H \Box 1 = M \Box 0 = L$	Record the rating on	the first page	

RIVERINE AND FRESHWATER TIDAL FRINGE V	VETLANDS	
Hydrologic Functions - Indicators that site functions to reduce flooding	and stream erosi	on
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 width of the stream or river channel (distance between banks). Calculate the ratio 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 <u>NOT Cowardin</u> 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 th	e boxes above	6

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

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 incom	porated area? Yes = 1	No = 0	1
R 5.3 Is the up-gradient stream or river controlled by dams?	Yes = 0	No = 1	1
Total for R 5	Add the points in the boxe	s above	3

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

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

Rating of Value If score is: $\square 2 - 4 = H \square 1 = M \square 0 = L$

Record the rating on the first page

Wetland name or number WFW-07

	These questions apply to w	vetlands of all HGM classes.	
HABITAT FUNCTIONS - In	ndicators that site functions to pro	vide important habitat	
	e the potential to provide habit		
Forested class. Check th combined for each class smaller than 2.5 ac. Add Aquatic bed G Emergent Scrub-shrub (a Forested (area If the unit has a	the Cowardin plant classes in the to meet the threshold of ¼ ac I the number of structures check treas where shrubs have > 30% s where trees have > 30% cove a Forested class, check if:	4 structures or more: points = 4 3 structures: points = 2 6 cover) 2 structures: points - 1	1
	cover) that each cover 20% with		
Check the types of water has to cover more than 1 hydroperiods). Permanently flo Seasonally flo Cccasionally flo Saturated only Permanently flo Casesonally flow Lake Fringe w	10% of the wetland or ¼ ac to c boded or inundated boded or inundated ooded or inundated owing stream or river in, or adja wing stream in, or adjacent to, t retland	the wetland 2 points	1
Freshwater tio		2 points	
Different patches of the s not have to name the sp loosestrife, Canadian t If you counted: > 19	nt species in the wetland that c same species can be combined ecies. Do not include Eurasia histle species	cover at least 10 ft ² . d to meet the size threshold and you do an milfoil, reed canarygrass, purple points = 2	1
) species	points = 1	
	pecies		

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

Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 9 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 + (0.1 % moderate & low intensity land uses / 2) =	= 0.05%	
If total accessible habitat is:		0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon po	oints = 3	
20 - 33% of 1 km Polygon po	oints = 2	
10 - 19% of 1 km Polygon po	oints = 1	
< 10 % of 1 km Polygon po	oints = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
13.7 % undisturbed habitat + (17.7 % moderate & low intensity land uses / 2) =	= 22.55%	
		1
Undisturbed habitat > 50% of Polygon po	oints = 3	I
Undisturbed habitat 10 - 50% and in 1-3 patches po	oints = 2	
Undisturbed habitat 10 - 50% and > 3 patches po	oints = 1	
Undisturbed habitat < 10% of 1 km Polygon po	oints = 0	
H 2.3 Land use intensity in 1 km Polygon: If		
> 50% of 1 km Polygon is high intensity land use point	ts = (-2)	-2
≤ 50% of 1km Polygon is high intensity po	oints = 0	
Total for H 2 Add the points in the boxes	s above	-1

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < < 1 = LRecord 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)	ige)
It provides habitat for Threatened or Endangered species	(any plant
or animal on the state or federal lists)	
It is mapped as a location for an individual WDFW priority	species
It is a Wetland of High Conservation Value as determined	by the
Department of Natural Resources	
It has been categorized as an important habitat site in a lo	cal 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: $\Box 2 = H \lor 1 = M \Box 0 = L$	Record the rating on the first page

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

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- 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	I Туре	Category
Observations		
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
SC 1.0.	Does the wetlands meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	\Box Yes - Go to SC 1.1 \Box 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?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 1.2}$	
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	
SC 2.0.	Wetlands of High Conservation Value (WHCV)	
	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	
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 D 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.		
	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.		
	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?	
	$\Box \text{ Yes - Go to } SC 3.3 \qquad \Box \text{ No} = \text{Is not a bog}$	
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,	
SC 3.4.	the wetland is a bog.	
30 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?	
L	□ Yes = Is a Category I bog □ No = Is not a bog	

Wetland name or number WFW-07

SC 4 0	Forested Wetlands			
00 4.0.	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? 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</i>			
	to be measured near the bottom)			
	$\Box \text{ Yes - Go to SC 5.1} \qquad \Box \text{No} = \text{Not a wetland in a coastal lagoon}$			
_	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).			
	8			
	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			
	\square Yes - Go to SC 6.1 \square 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)?			
	\Box Yes = Category I \Box 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?			
	$\Box Yes = Category III \qquad \Box No = Category IV$			
Categor	y of wetland based on Special Characteristics			
-	swered No for all types, enter "Not Applicable" on Summary Form			
n you al				



150 Feet

75

Wetland WFW-07 **Cowardin Plant Classes and Cover**



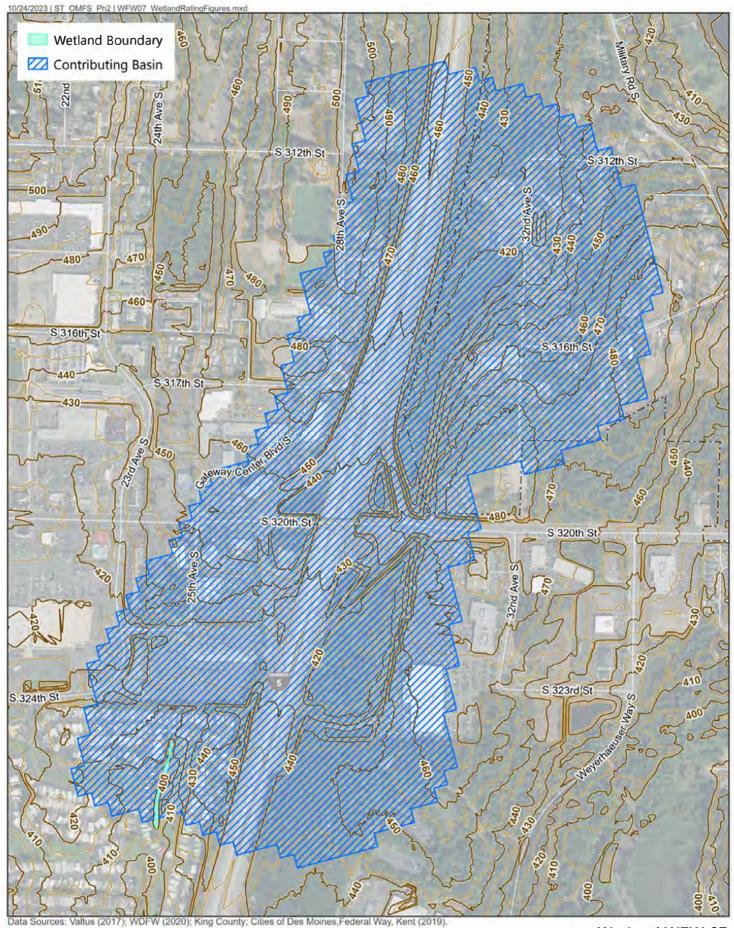
Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

150 Feet

75

1

Wetland WFW-07 Hydroperiods

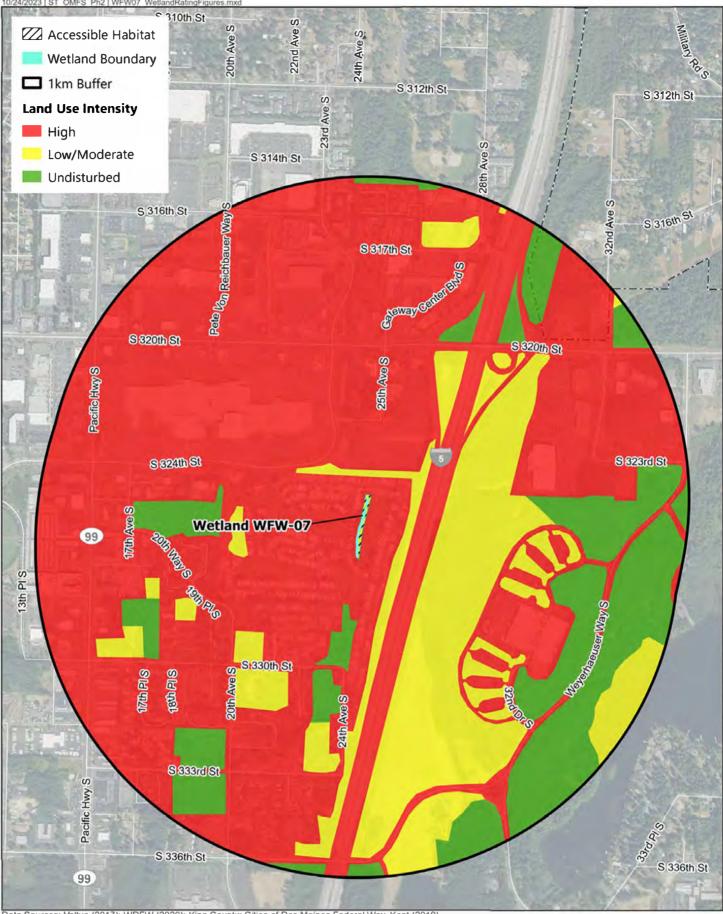


N 0 500 1,000 Feet

Wetland WFW-07 Contributing Basin

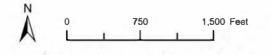
OMF South

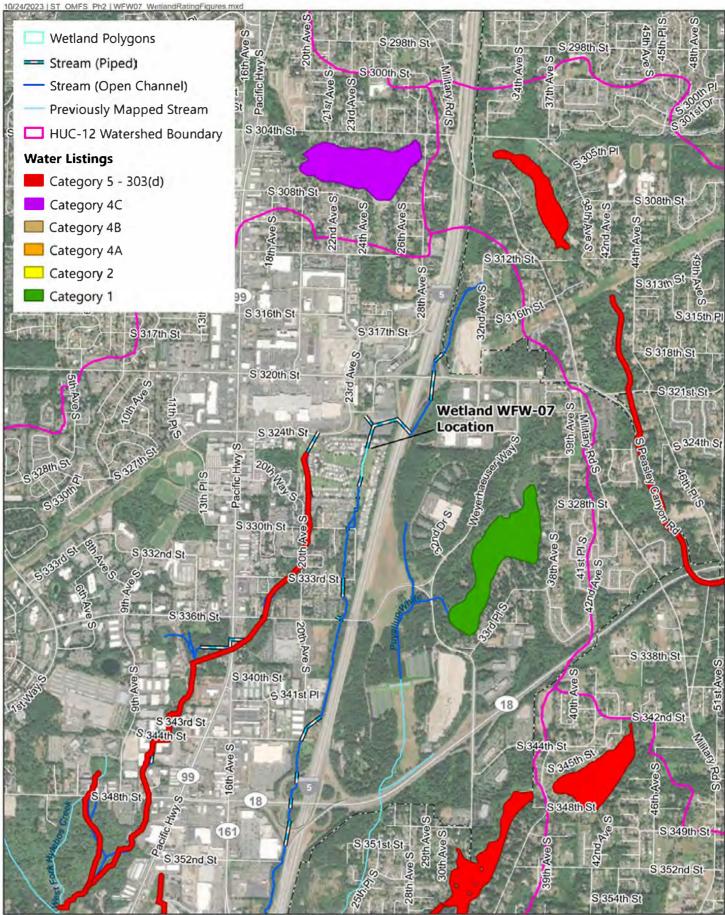




Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

Wetland WFW-07 Land Use Intensity

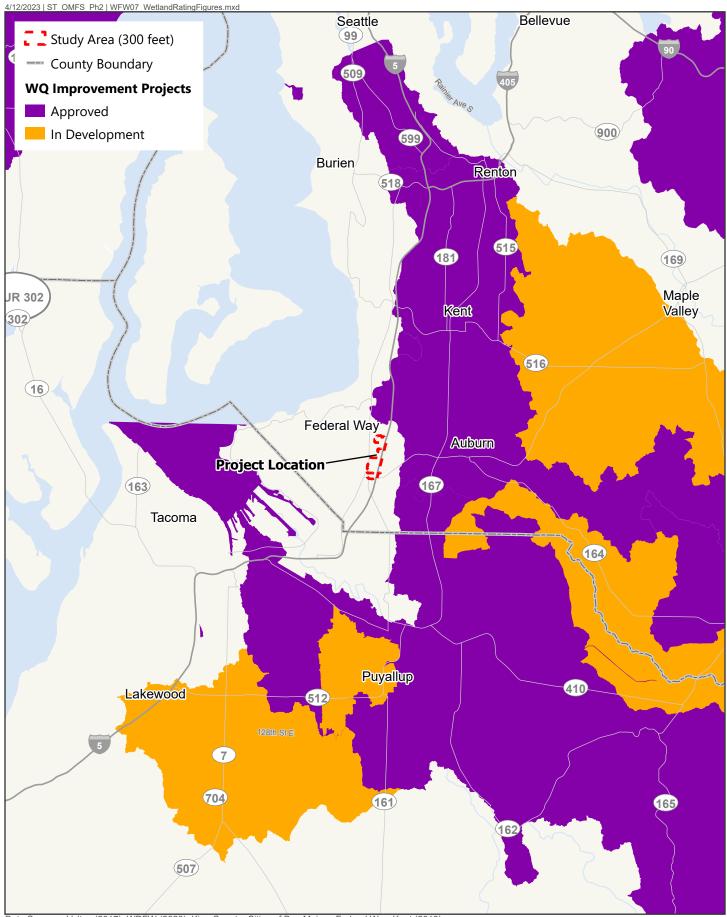




3,000 Feet

1,500

Wetland WFW-07 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-07 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WFW	-08	Date of site visit:	11/6/2019		
Rated by <u>A Thom, revised by A. W</u>	eiss Trained by Ecology? ☑ Yes □No	Date of training	Oct. 2020		
HGM Class used for rating River	ne Wetland has multiple	e HGM classes? 🔲 `	Yes ⊡No		
NOTE: Form is not complete with out the figures requested (<i>figures can be combined</i>). Source of base aerial photo/map ESRI / Google Earth Pro					
	· · ·				
OVERALL WETLAND CATEGORY III (based on functions I or special characteristics)					
1. Category of wetland based on FUNCTIONS					
		Score for each			
Cate	ory II - Total score = 20 - 22	function based			

 Category II - Total score = 20 - 22

 X
 Category III - Total score = 16 - 19

 Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	М	М	L	
Landscape Potential	Н	М	L	
Value	L	Н	М	Tota
Score Based on Ratings	6	7	4	17

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

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

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?

- 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
- □ NO Saltwater Tidal Fringe (Estuarine) □ YES Freshwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

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

- ☑ NO go to 3
 If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.
- 3. Does the entire wetland unit **meet all** of the following criteria?
 - □ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ☑ NO go to 4

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

- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (slope can be very gradual),
 - ☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - □ The water leaves the wetland **without being impounded**.
 - ☑ NO go to 5

□ YES - The wetland class is Slope

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

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

- ☑ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- ☑ The overbank flooding occurs at least once every 2 years.
- 🗌 NO go to 6

✓ YES - The wetland class is Riverine

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

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

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.

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:

RIVERINE AND FRESHWATER TIDAL FRINGE	WETLANDS	
Water Quality Functions - Indicators that the site functions to impr	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedin flooding event:	nents during a	
Depressions cover $> \frac{3}{4}$ area of wetland	points = 8	0
Depressions cover > 1/2 area of wetland	points $= 4$	0
Depressions present but cover < $\frac{1}{2}$ area of wetland	points = 2	
No depressions present	points $= 0$	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, classes)	not Cowardin	
Trees or shrubs > $^{2}/_{3}$ area of the wetland	points = 8	
\Box Trees or shrubs > $\frac{1}{3}$ area of the wetland	points = 6	6
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points $= 6$	
Herbaceous plants (> 6 in high) > $^{1}/_{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland	points $= 0$	
Total for R 1 Add the points in	the boxes above	6

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

R 2.0. Does the landscape have the potential to support the water of	quality function of the sit	e?	
R 2.1. Is the wetland within an incorporated city or within its UGA?			2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1	No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled field pastures, or forests that have been clearcut within the last 5 years?		No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses generate pollutants?	s that Yes = 1	No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland not listed in questions R 2.1 - R 2.4?	d that are		1
Other Sources golf course fertilizer	Yes = 1	No = 0	
Total for R 2 Ac	dd the points in the boxe	s above	5

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L Record the rating on 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, toxics, or pathogens?	Yes = 1	No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (<i>answer YES if there is a TMDL for the drainage in which the unit is found</i>)	Yes = 2	No = 0	0
Total for R 3 Add the points	in the boxe	es above	0
Rating of Value If score is: □ 2 - 4 = H □ 1 = M ☑ 0 = L	Record the	rating on	the first page

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

RIVERINE AND FRESHWATER TIDAL FRING	E WETLANDS	
Hydrologic Functions - Indicators that site functions to reduce floo	ding and stream erosio	n
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 of the stream or river channel (distance between banks). Calculate the ratio: (a 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</i> <u>NOT Cowardin</u> classes).		
Forest or shrub for > $^{1}/_{3}$ area OR emergent plants > $^{2}/_{3}$ area	points = 7	7
Forest or shrub for $> 1/_{10}$ area OR emergent plants $> 1/_3$ area	points $= 4$	
Plants do not meet above criteria	points $= 0$	
Total for R 4 Add the point	s in the boxes above	9

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

R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?		
Yes = 0 No = 1	1	
Yes = 1 No = 0	1	
Yes = 0 No = 1	0	
ts in the boxes above	2	
	$\frac{\text{Yes} = 0 \text{No} = 1}{\text{Yes} = 1 \text{No} = 0}$ $\frac{\text{Yes} = 1 \text{No} = 0}{\text{Yes} = 0 \text{No} = 1}$ $\text{ts in the boxes above}$	

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

R 6.0. Are the hydrologic functions provided by the site valuable to societ	y?	
R 6.1. Distance to the nearest areas downstream that have flooding prob	lems?	
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	2
Surface flooding problems are in a sub-basin farther down-grad No flooding problems anywhere downstream	lient points = 1 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	2
Pating of Value If score is: $\sqrt{2} - 4 - 4$	Pocord the rating on	the first near

Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$

Record the rating on the first page

Wetland name or number WFW-08

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</i> 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 Aquatic bed Emergent Scrub-shrub (areas where shrubs have > 30% cover) Forested (areas where trees have > 30% cover) Istructures: 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 	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 (<i>see text for descriptions of</i> <i>hydroperiods</i>).	
 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 □ 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	1
If you counted:> 19 speciespoints = 25 - 19 speciespoints = 1< 5 species	
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. <i>If you have four or more plant classes or three classes and open water,</i> <i>the rating is always high.</i>	
	1
None = 0 pointsLow = 1 pointModerate = 2 points	I
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) □ 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) 	0
Total for H 1 Add the points in the boxes above	4

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

H 2.0. Does the landscape have the potential to support the habita	t function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts we	etland unit).	
Calculate:		
0 % undisturbed habitat + (0 % moderate & low	w 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 = 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:		
15.8 % undisturbed habitat + (19.9 % moderate & low	<i>w</i> intensity land uses / 2) = 25.75%	
		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 A	dd 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	s? 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 plane)	ant	
or animal on the state or federal lists)		
It is mapped as a location for an individual WDFW priority species	S	1
☐ It is a Wetland of High Conservation Value as determined by the		I
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 ValueIf Score is: $\Box 2 = H$ $\Box 1 = M$ $\Box 0 = L$ Record	ord the rating on a	the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **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.

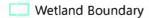
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland	Туре	Category	
<i></i>			
Check off any criteria that apply to the wetland. List the category when the appropriate criteria are met.			
50 1.0.1	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		
	\square Yes - Go to SC 1.1 \square 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?		
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 1.2}$		
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		
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		
00.04	□ 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?		
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Not WHCV}$		
SC 3.0.			
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.			
	that compose 16 in or more of the first 32 in of the soil profile?		
	☐ Yes - Go to SC 3.3		
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?		
	\Box Yes - Go to SC 3.3 \Box 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?		
	$\Box Yes = Is a Category I bog \qquad \Box No - Go to SC 3.4$		
	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?		
<u> </u>	☐ Yes = Is a Category I bog ☐ No = Is not a bog		

SC 4 0	Forested Wetlands	
30 4.0.		
	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? 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 Wo = 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).	
	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 $\frac{1}{10}$ ac (4350 ft ²)	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Category I}$	
SC 6.0	Interdunal Wetlands	
00 0.0.1	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	
	\Box Yes - Go to SC 6.1 \Box 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	
Categor	y of wetland based on Special Characteristics	
If you an	swered No for all types, enter "Not Applicable" on Summary Form	





- Stream Ordinary High Water Mark
- = Stream (Piped)

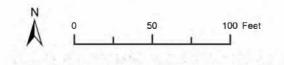
Cowardin Plant Classes

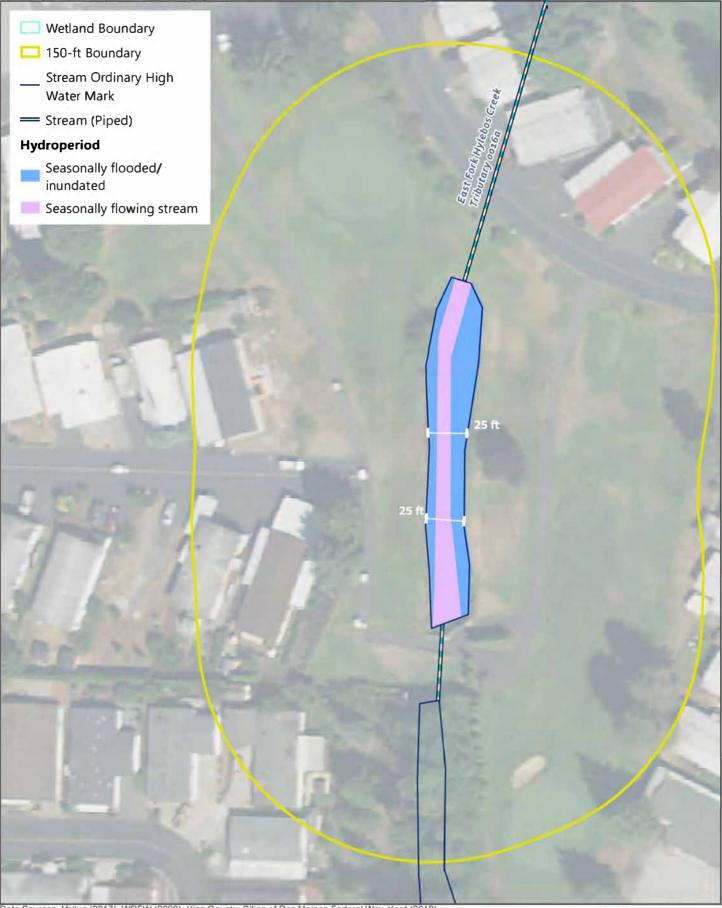
- Palustrine Emergent (PEM)
- Palustrine Scrub Shrub (PSS)
- Z Trees or Shrubs with >90% Cover at Person Height

K Hylebos Creek

Data Sources; Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

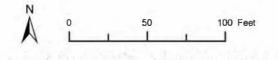
Wetland WFW-08 Cowardin Plant Classes and Cover

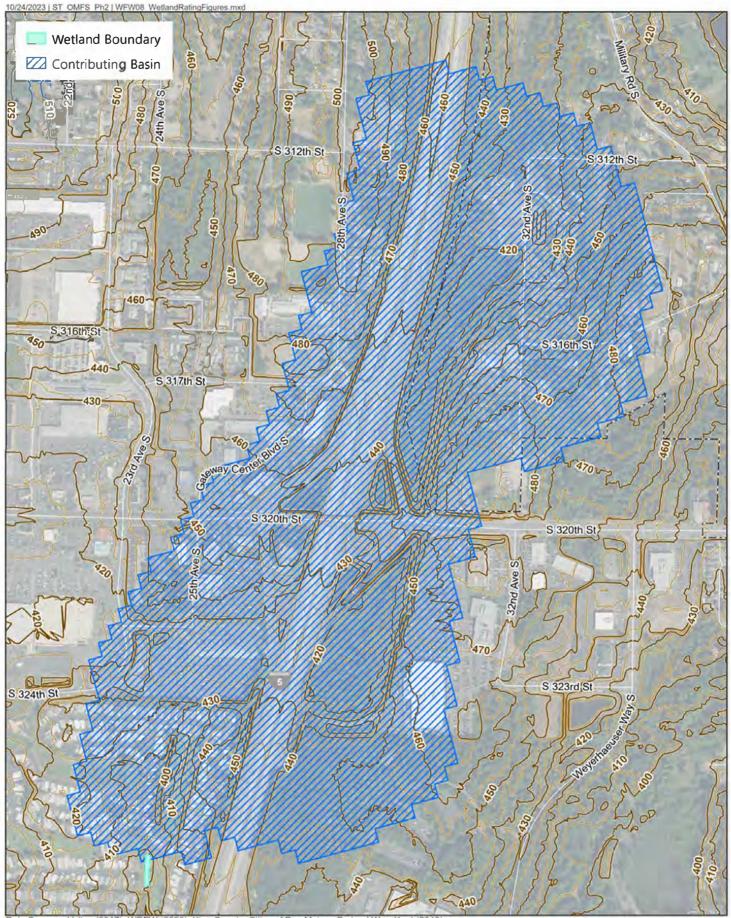




Data Sources; Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

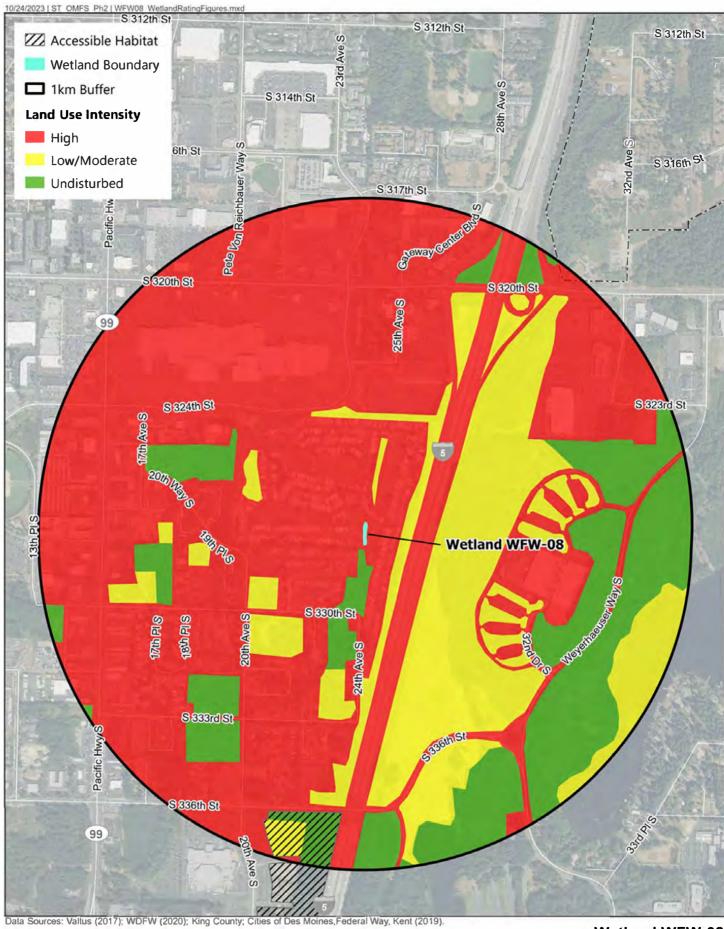
Wetland WFW-08 Hydroperiods





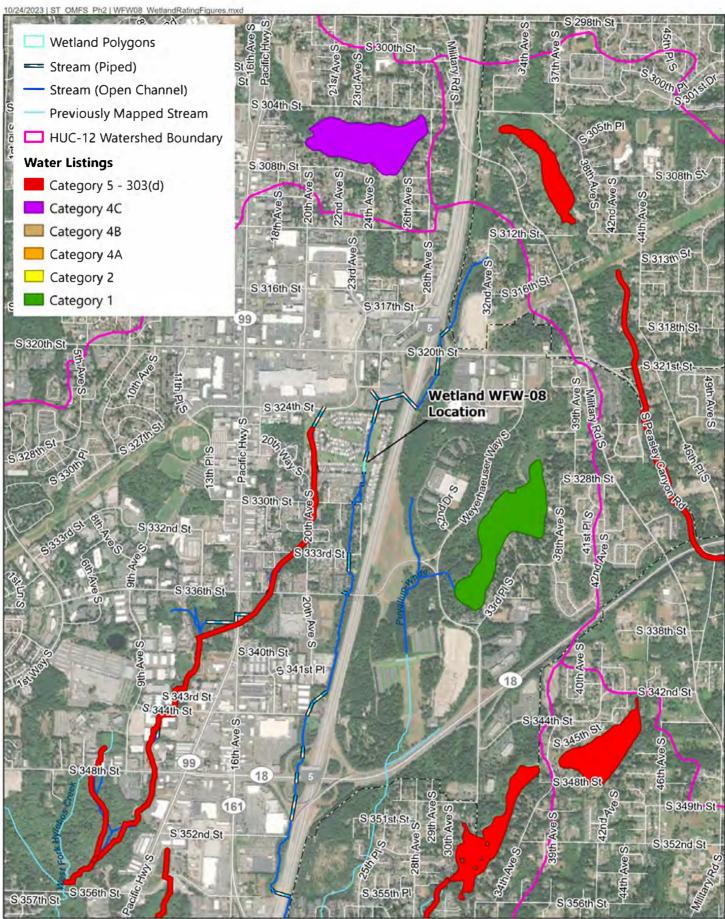
N 0 500 1,000 Feet

Wetland WFW-08 Contributing Basin



Ν 750 1,500 Feet 0

Wetland WFW-08 Land Use Intensity

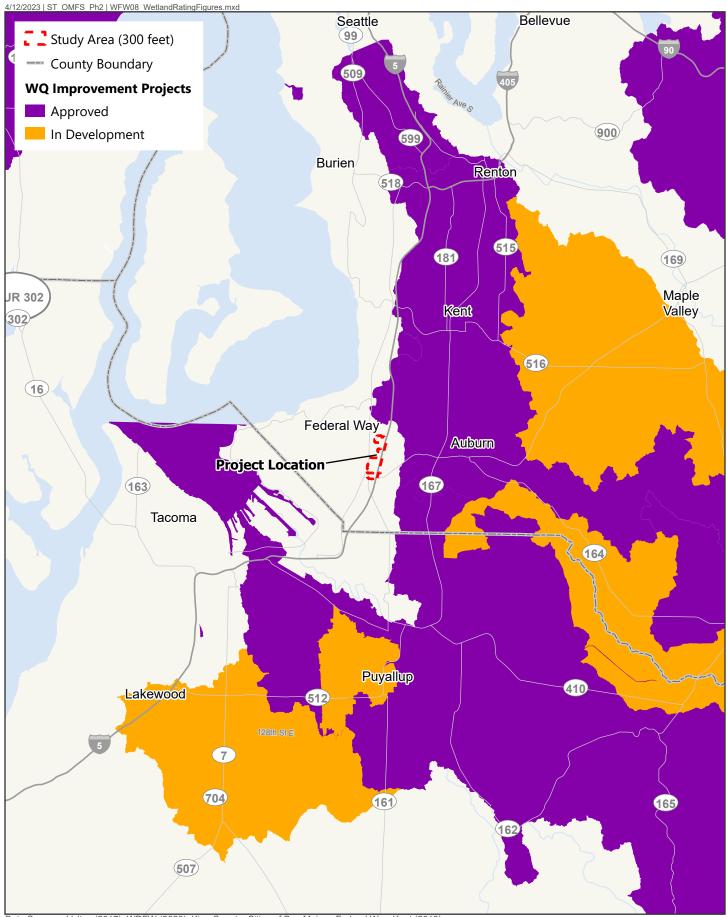


3,000 Feet

1,500

0

Wetland WFW-08 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-08 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WFW-09		Date of site visit:	11/14/2019
Rated by A. Thom, S. Krueger	Trained by Ecology? ☑ Yes ☐No	Date of training	Oct-18
HGM Class used for rating Riverine	Wetland has multiple	HGM classes?	Yes 🗹 No
NOTE: Form is not complete with out the figures requested (figures can be combined). Source of base aerial photo/map ESRI / Google Earth Pro			
OVERALL WETLAND CATEGORY	(based on functions 🗹 or special	characteristics)

1. Category of wetland based on FUNCTIONS

	Category I - Total score = 23 - 27
	Category II - Total score = 20 - 22
X	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	1 (H, M, L)	
Site Potential	М	М	L	
Landscape Potential	Н	Н	L	
Value	L	Н	М	Tota
Score Based on Ratings	6	8	4	18

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	X

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (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 (<i>can be added to another figure</i>)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?

- 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
- □ NO Saltwater Tidal Fringe (Estuarine)
 If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands.
 If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be used to score functions for estuarine wetlands.

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

- ✓ NO go to 3
 If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.
- 3. Does the entire wetland unit **meet all** of the following criteria?
 - The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - NO go to 4

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

- 4. Does the entire wetland unit **meet all** of the following criteria?
 - The wetland is on a slope (*slope can be very gradual*),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - \Box The water leaves the wetland without being impounded.
 - 🗹 NO go to 5

YES - The wetland class is **Slope**

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

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- ☑ The overbank flooding occurs at least once every 2 years.
- \Box NO go to 6

✓ YES - The wetland class is **Riverine**

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

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

VO - go to 7 VES - 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.

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:

RIVERINE AND FRESHWATER TIDAL FRINGE V	VETLANDS	
Water Quality Functions - Indicators that the site functions to impro	ve water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedim flooding event:	ents during a	
Depressions cover $> {}^{3}/_{4}$ area of wetland	points = 8	0
Depressions cover > ½ area of wetland	points = 4	0
Depressions present but cover < $\frac{1}{2}$ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, classes)	not Cowardin	
Trees or shrubs $> 2/3$ area of the wetland	points = 8	
\Box Trees or shrubs > $^{1}/_{3}$ area of the wetland	points = 6	8
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > $\frac{1}{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland	points = 0	
Total for R 1 Add the points in the formation of the form	ne boxes above	8

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

R 2.0. Does the landscape have the potential to support the water qu	ality function of the si	ite?	
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2	No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1	No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields pastures, or forests that have been clearcut within the last 5 years?	, Yes = 1	No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses tl generate pollutants?	hat Yes = 1	No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland t not listed in questions R 2.1 - R 2.4?	hat are		1
Other Sources golf course fertilizer	Yes = 1	No = 0	
Total for R 2 Add t	the points in the boxe	s above	5

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L *Record the rating on the first page*

R 3.0. Is the water quality improvement provided by the site valuable to socie	ety?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1	No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	Yes = 1	No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (<i>answer YES if there is a TMDL for the drainage in which the unit is found</i>)	Yes = 2	No = 0	0
Total for R 3 Add the poin	ts in the boxe	s above	0
Rating of Value If score is: □ 2 - 4 = H □ 1 = M □ 0 = L	Record the	rating on	the first page

RIVERINE AND FRESHWATER TIDAL FRINGE V	VETLANDS	
Hydrologic Functions - Indicators that site functions to reduce flooding	and stream erosic	n
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 of the stream or river channel (distance between banks). Calculate the ratio: (avera 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>Trea</i> debris as forest or shrub. Choose the points appropriate for the best description (p to have >90% cover at person height. These are <u>NOT Cowardin</u> classes).		-
Forest or shrub for > $^{1}/_{3}$ area OR emergent plants > $^{2}/_{3}$ area	points = 7	7
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 t	he 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

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 incorp	porated area? Yes = 1	No = 0	1		
R 5.3 Is the up-gradient stream or river controlled by dams?	Yes = 0	No = 1	1		
Total for R 5 Add the points in the boxes above					

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

R 6.0. Are the hydrologic functions provided by the site valuable to society?		
R 6.1. Distance to the nearest areas downstream that have flooding problems?		
Choose the description that best fits the site.		
The sub-basin immediately 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	2
Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream	points = 1 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	2
	Percent the reting on	the first need

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. ABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
1.0. Does the site have the potential to provide habitat?	
1.1.1. Structure of plant community: <i>Indicators are Cowardin classes and strata within the</i> <i>Torested class.</i> Check the Cowardin plant classes in the wetland. Up to 10 patches may be ombined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller nan 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 	0
I 1.2. Hydroperiods check the types of water regimes (hydroperiods) present within the wetland. The water regime as to cover more than 10% of the wetland or ¼ ac to count (<i>see text for descriptions of</i> <i>ydroperiods</i>).	
 Permanently flooded or inundated Seasonally flooded or inundated Seasonally flooded or inundated Occasionally flooded or inundated 2 types present: points = 1 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	
1 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 ot have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple posestrife, Canadian thistle	0
you counted:> 19 speciespoints = 25 - 19 speciespoints = 1< 5 species	
I 1.4. Interspersion of habitats becide 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. <i>If you have four or more plant classes or three classes and open</i> water, the rating is always high.	0

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. The number of checks is the number of points. Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) \Box 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) C At least 1/4 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) Add the points in the boxes above 2

Total for H 1

Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 9 0 - 6 = L Record the rating on the first page

	hitat function of the site?	
H 2.0. Does the landscape have the potential to support the hal		
H 2.1 Accessible habitat (include only habitat that directly abuts	s wetland unit).	
Calculate:		
0.3 % undisturbed habitat + (0 % moderate &	low intensity land uses / 2) = 0.3%	
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	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland		
Calculate:		
17.5 % undisturbed habitat + (21 % moderate &	low intensity land uses / 2) = 28%	
		1
Undisturbed habitat > 50% of Polygon	points = 3	I
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 2 < 1 = L Record the rating on the first page

Department of Natural Resources It has been categorized as an important habitat site in a local or		
\Box It is a Wetland of High Conservation Value as determined by the		1
\Box It is mapped as a location for an individual WDFW priority species		4
or animal on the state or federal lists)	·	
 It has 3 or more priority habitats within 100 m (see next page) It provides habitat for Threatened or Endangered species (any plan 	+	
Site meets ANY of the following criteria:	points = 2	
only the highest score that applies to the wetland being rated .		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies?	Choose	
	Choose	

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.

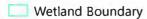
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland	Type	Category
Chook off	for avitaria that apply to the watland List the asternary when the appropriate pritoria are mat	
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
00 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	
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?	
	$\Box \text{ Yes} = \textbf{Category I} \qquad \Box \text{ No - Go to SC 1.2}$	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
	<i>Spartina</i> , see page 25)	
	J	
	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 I	
SC 2.0. \	Wetlands of High Conservation Value (WHCV)	
SC 2.1.	•	
	of Wetlands of High Conservation Value?	
	☑ Yes - Go to SC 2.2 □ No - Go to SC 2.3	
SC 2.2.		
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	
	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	
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	
30 3.3.	level, AND at least a 30% cover of plant species listed in Table 4?	
	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No - Go to SC 3.4}$	
	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	
L		

SC 4 0	Forested Wetlands	
30 4.0.1		
	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.	
	200 years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	exceeding 21 in (55 cm).	
	Yes = Category I Ves = Category I Ves = Not a forested wetland for this section	
SC 50	Wetlands in Coastal Lagoons	
55 5.0.	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 $\frac{3}{4}$ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland is larger than $1/_{10}$ ac (4350 ft ²)	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Category I}$	
SC 6.0	Interdunal Wetlands	
000.0.0	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	
	\Box Yes - Go to SC 6.1 \Box No = Not an interdunal wetland for rating	
SC 6.1.		
	(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?	
	□ 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	
Categor	y of wetland based on Special Characteristics	
	swered No for all types, enter "Not Applicable" on Summary Form	
In you an	swered no for all types, enter not Applicable on Summary Form	





- ----- Stream Ordinary High Water Mark
- Stream (Piped)

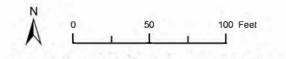
Cowardin Plant Classes

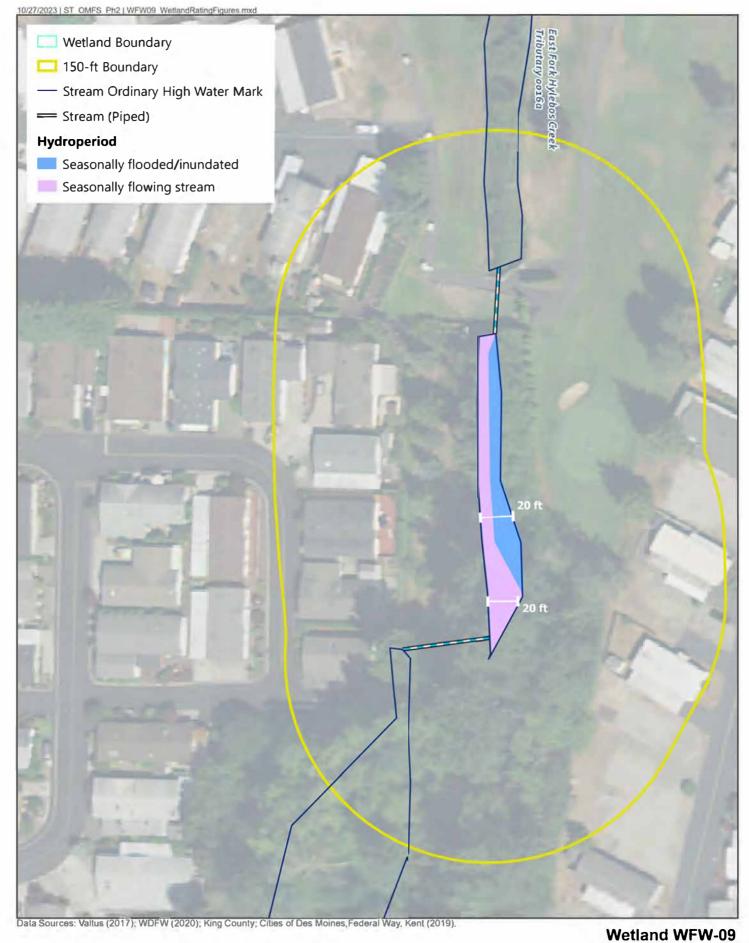
- Palustrine Scrub Shrub (PSS)
- Z Trees or Shrubs with >90% Cover at Person Height

Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

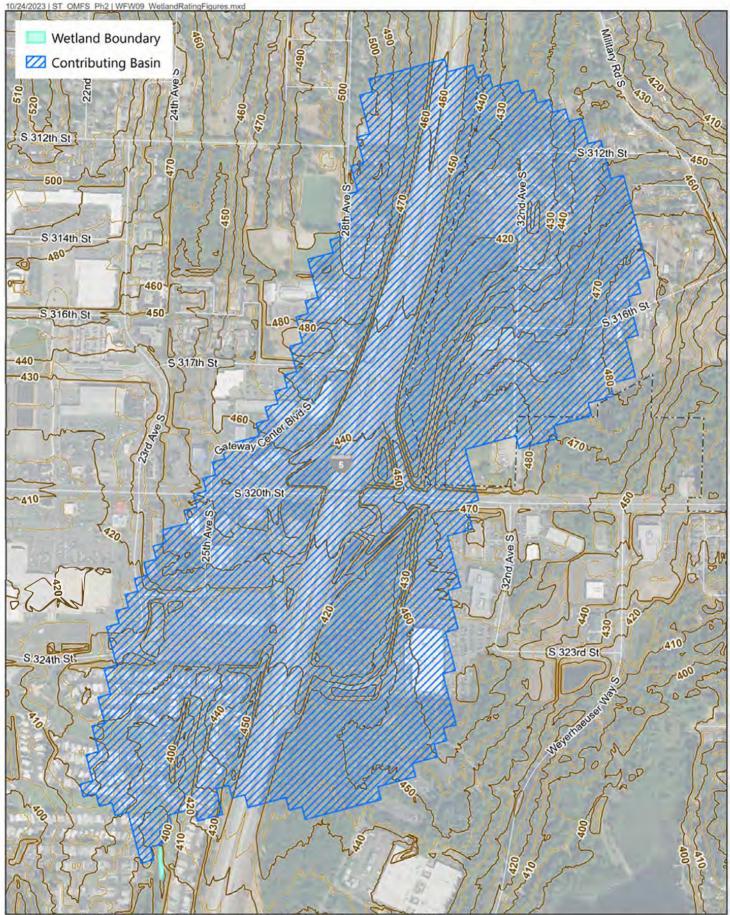
Wetland WFW-09 Cowardin Plant Classes and Cover

East Fork Hylebos Creek Tributary oo16a





N 0 50 100 Feet



1.000 Feet

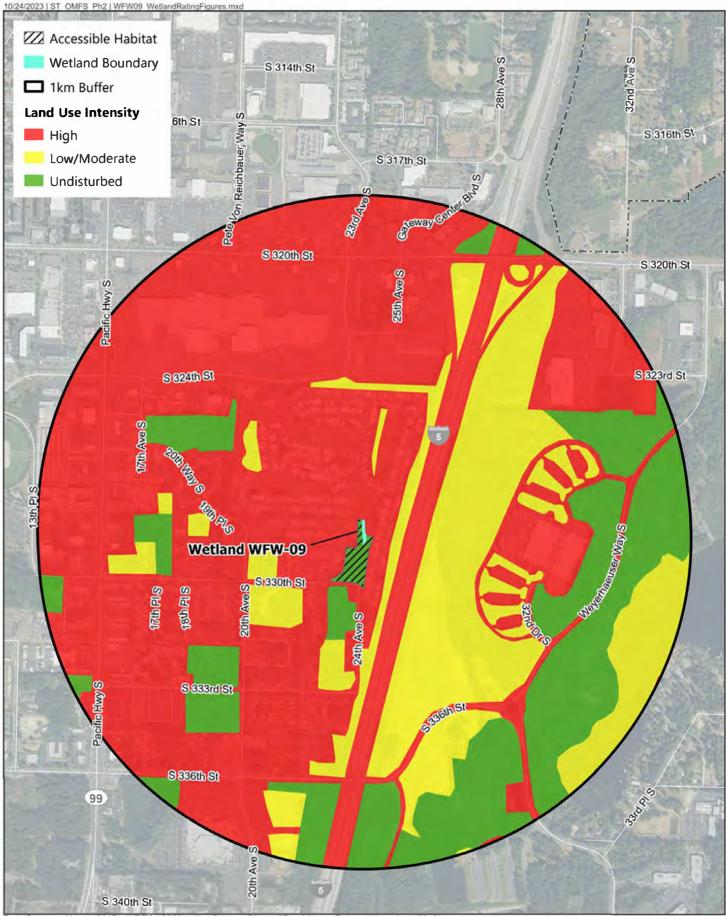
500

Ν

A

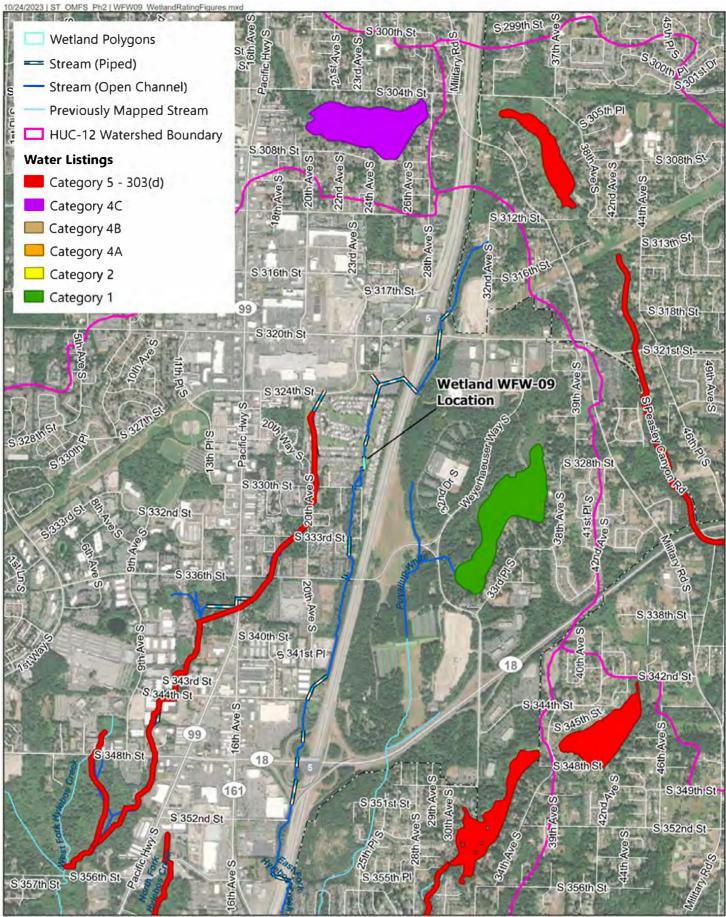
0

Wetland WFW-09 Contributing Basin



N 0 750 1,500 Feet

Wetland WFW-09 Land Use Intensity

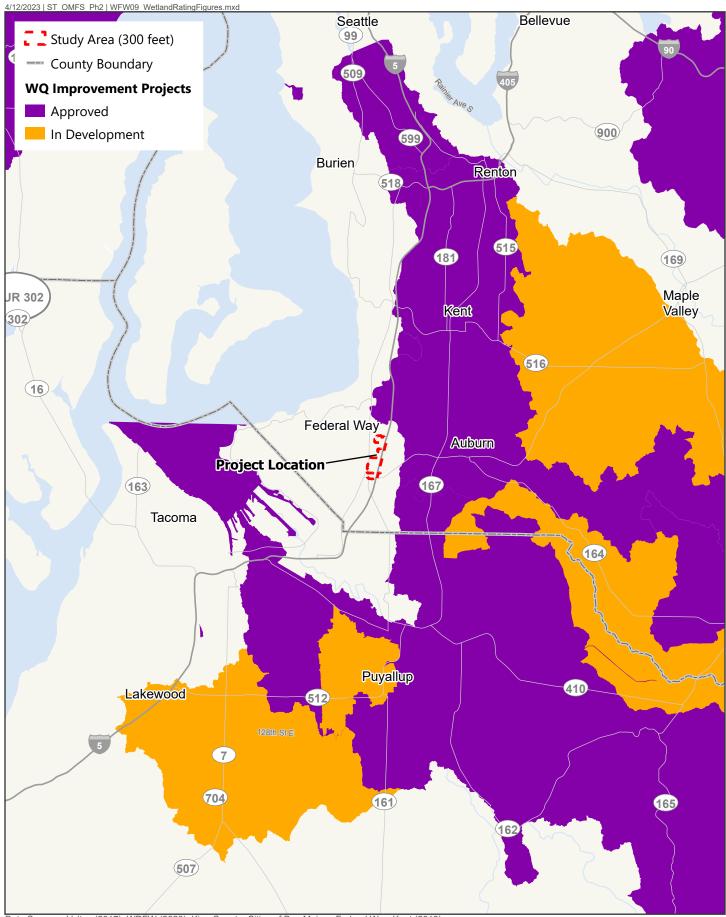


3,000 Feet

1,500

0

Wetland WFW-09 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-09 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or	ID #):	WFW-10					Date of site visit:	11/1/2019
Rated by A. Hoenig,	A. Thor	n	Tr	ained by E	cology? 🗹]Yes □No	Date of training	Oct-15
HGM Class used for rating Riverine Wetland has multiple HGM classes? Yes								Yes ⊡No
NOTE: Form is not complete with out the figures requested (<i>figures can be combined</i>). Source of base aerial photo/map ESRI / Google Earth Pro								
OVERALL WETLA	ND CA	TEGORY	III	(based on	functions	⊡or specia	al characteristics	
1. Category of w	vetland	based on	FUNCTION	s				
		Category I	I - Total score	= 23 - 27			Score for each	
		Category 1	II - Total score	e = 20 - 22			function based	
	Х	Category I	III - Total scor	e = 16 - 19)		on three	
		Category	IV - Total scor	e = 9 - 15			ratings	
		_					(order of ratings	
FUNCTION	Imp	oroving	Hydrologic	Habitat			is not	
TONCTION	Wate	r Quality					important)	
		List app	ropriate rating	g (H, M, L)				
Site Potential		М	М	М			9 = H, H, H	
Landscape Potential		Н	Н	L			8 = H, H, M	
Value		L	Н	М	Total		7 = H, H, L	
Score Based on Ratings		6	8	5	19		7 = H, M, M 6 = H, M, L	
					-	4	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.
4 And the contact levels in the entire contractive levels contracted by tiples except during fleedeQ

- 1. Are the water levels in the entire unit usually controlled by tides except during floods?
 - ✓ NO go to 2
 YES the wetland class is Tidal Fringe go to 1.1
 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - □ NO Saltwater Tidal Fringe (Estuarine) □ YES Freshwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

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

- ☑ NO go to 3
 If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.
- 3. Does the entire wetland unit meet all of the following criteria?
 - ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ☑ NO go to 4

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

- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (slope can be very gradual),
 - ☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - □ The water leaves the wetland **without being impounded**.
 - ☑ NO go to 5

□ YES - The wetland class is Slope

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

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

- ☑ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- ☑ The overbank flooding occurs at least once every 2 years.
- □ NO go to 6

✓ YES - The wetland class is Riverine

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

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

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.

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:

R3.3, R6.1, R6.2:

Schwartz, M., Salibury, N., Brosseau, W., Bui, P., and Anderson, R. 2016. Hylebos Watershed Plan. Prepared by Earth Corps. July 2016.

Pierce County 2006. HYLEBOS BROWNS-DASH POINT Volume 1 – Basin Plan & SEIS. Prepared by Pierce County Public Works Utilities Water Program. December 2006.

RIVERINE AND FRESHWATER TIDAL FRINGE	<u>WETLANDS</u>	
Water Quality Functions - Indicators that the site functions to impro	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedim flooding event:	ents during a	
Depressions cover $> \frac{3}{4}$ area of wetland	points = 8	2
Depressions cover > $\frac{1}{2}$ area of wetland	points $= 4$	2
Depressions present but cover < 1/2 area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, classes)	not Cowardin	
Trees or shrubs $> {}^{2}/{}_{3}$ area of the wetland	points = 8	
\Box Trees or shrubs > $^{1}/_{3}$ area of the wetland	points $= 6$	8
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points $= 6$	
Herbaceous plants (> 6 in high) > $\frac{1}{3}$ area of the wetland	points $= 3$	
Trees, shrubs, and ungrazed herbaceous $< 1/3$ area of the wetland	points $= 0$	
Fotal for R 1 Add the points in	the boxes above	10

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

er quality function of the site?	
A? Yes = 2 No	= 0 2
or Yes = 1 No	= 0 1
ields, rs? Yes = 1 No	= 0 0
ses that Yes = 1 No	= 0 1
and that are	1
Yes = 1 No	= 0
Add the points in the boxes ab	ove 5
	A?Yes = 2NoorYes = 1Noields,rs?Yes = 1NoSes thatYes = 1Yes = 1No

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L Record the rating on 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, toxics, or pathogens?	Yes = 1	No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (<i>answer YES if there is a TMDL for the drainage in which the unit is found</i>)	Yes = 2	No = 0	0
Total for R 3 Add the points	in the boxe	es above	0
Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$	Record the	rating on	the first page

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

RIVERINE AND FRESHWATER TIDAL FRING	SE WETLANDS	
Hydrologic Functions - Indicators that site functions to reduce floo	oding and stream erosio	n
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 of the stream or river channel (distance between banks). Calculate the ratio: (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: debris as forest or shrub. Choose the points appropriate for the best description have >90% cover at person height. These are <u>NOT Cowardin</u> classes).	• •	-
Forest or shrub for $> \frac{1}{3}$ area OR emergent plants $> \frac{2}{3}$ area	points = 7	7
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 point	ts in the boxes above	9

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

R 5.0. Does the landscape have the potential to support the hydrologic func	tions 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	1
Total for R 5 Add the po	oints in the boxes	s above	3

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

R 6.0. Are the hydrologic functions provided by the site valuable to societ	y?	
R 6.1. Distance to the nearest areas downstream that have flooding prob	lems?	
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	2
Surface flooding problems are in a sub-basin farther down-grad No flooding problems anywhere downstream	lient points = 1 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	2
Pating of Value If score is: $\sqrt{2} - 4 - 4$	Pocord the rating on	the first near

Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$

Record the rating on the first page

Wetland name or number WFW-10

1.0. Does the site have the potential to provide habitat?	
1.1. Structure of plant community: <i>Indicators are Cowardin classes and strata within the</i> 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 han 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) Istructures: 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 	1
I 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has b 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 ↓ Seasonally flooded or inundated ↓ Occasionally flooded or inundated ↓ Occasionally flooded or inundated ↓ Saturated only ↓ Sturated only ↓ Seasonally flowing stream or river in, or adjacent to, the wetland ↓ Seasonally flowing stream in, or adjacent to, the wetland ↓ Seasonally flowing stream in, or adjacent to, the wetland 	2
 ☐ Lake Fringe wetland 2 points ☐ Freshwater tidal wetland 2 points 	
1 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 posestrife, Canadian thistle	1
you counted: > 19 species points = 2 5 - 19 species points = 1 < 5 species points = 0	
I 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. <i>If you have four or more plant classes or three classes and open water,</i> <i>the rating is always high.</i>	
	2
None Operate Deve Appint	-
None = 0 pointsLow = 1 pointModerate = 2 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) □ 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) 	3
Total for H 1 Add the points in the boxes above	9

Rating of Site Potential If Score is: \square 15 - 18 = H \bigcirc 7 - 14 = M \square 0 - 6 = L

 $4 = M \square 0 - 6 = L$ 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:		
0.3 % undisturbed habitat + (3.3 % moderate & low intensity land uses / 2	2) = 1.95%	
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:		
21.4 % undisturbed habitat + (19.7 % moderate & low intensity land uses / 2	:) = 31.25%	
		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 p	ooints = (-2)	-2
≤ 50% of 1km Polygon is high intensity	points $= 0$	
Total for H 2 Add the points in the bo	oxes above	-1

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M 3 < 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 plan	nt	
or animal on the state or federal lists)		
☐ It is mapped as a location for an individual WDFW priority species		4
It is a Wetland of High Conservation Value as determined by the		I
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 I = M 0 = L Record	d the rating on a	the first page

WDFW Priority Habitats

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

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

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

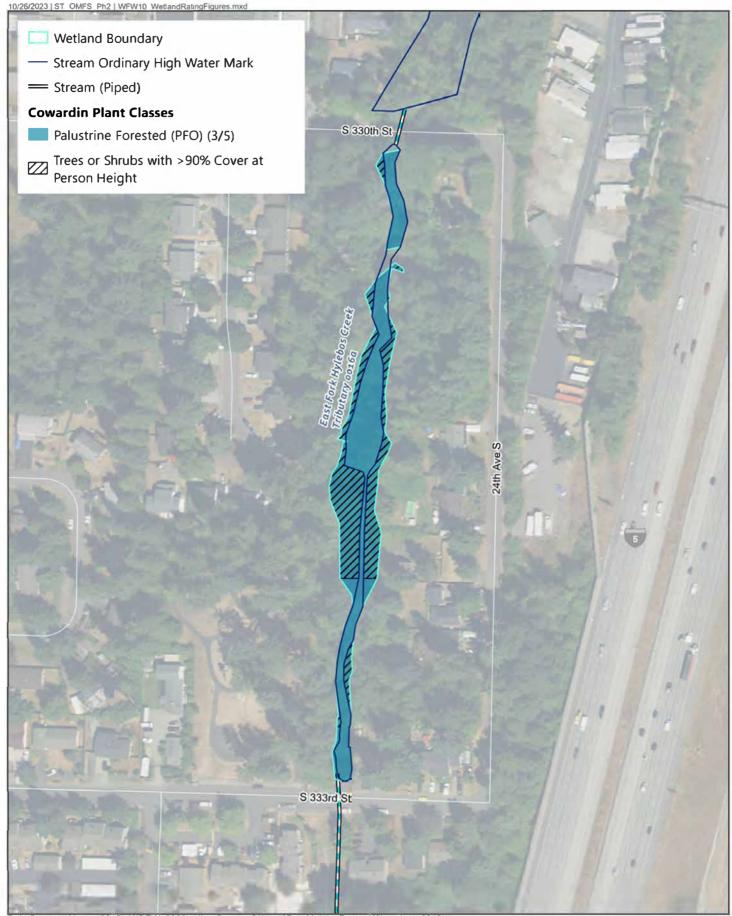
- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and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

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

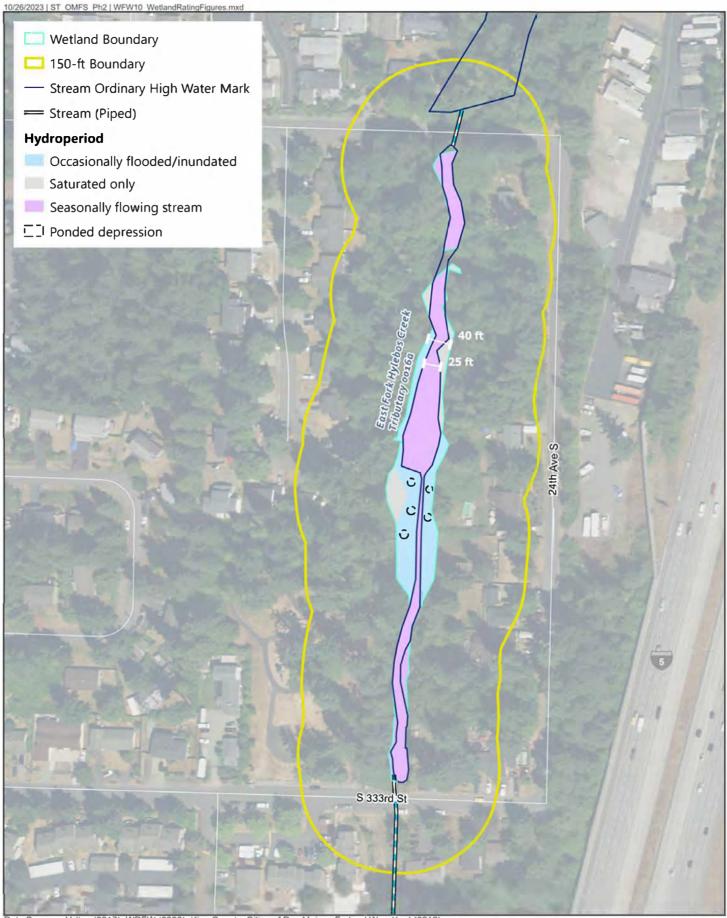
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type		Category
Oberels of		
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
50 1.0.1	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	
	\square Yes - Go to SC 1.1 \square No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary	
50 1.1.	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific	
	Reserve designated under WAC 332-30-151?	
	$\Box \text{ Yes} = \textbf{Category I} \qquad \Box \text{ No - Go to } \textbf{SC 1.2}$	
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	
SC 2.0.	Wetlands of High Conservation Value (WHCV)	
	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	
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	
	\Box Yes - Contact WNHP/WDNR and to SC 2.4 \Box 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?	
1	□ Yes = Category I □ No = Not WHCV	
SC 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,	
	that compose 16 in or more of the first 32 in of the soil profile?	
<u> </u>	\Box Yes - Go to SC 3.3 \Box 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?	
60.2.2	•	
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,	
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?	
	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No} = \text{Is not a bog}$	

CC 4 0 1	Corrected Wetlendo	
50 4.0.1	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? 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).	
	exceeding 21 in (55 cm).	
	Yes = Category I Ves = 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)	
	\Box Yes - Go to SC 5.1 \Box 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).	
	· · · · · · · · · · · · · · · · · · ·	
	grazed or un-mowed grassland.	
	The wetland is larger than $\frac{1}{10}$ ac (4350 ft ²)	
00.00	□ Yes = Category I □ No = Category II	
50 6.0.1	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	
	\Box Yes - Go to SC 6.1 \Box No = Not an interdunal wetland for rating	
SC 6.1.		
	(rates H,H,H or H,H,M for the three aspects of function)? \Box Xos = Catagory I	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? ■ No - Go to SC 6.2	
00 0.2.	$\Box \text{ Yes} = \text{Category II} \qquad \Box \text{ No - Go to SC 6.3}$	
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	
	y of wetland based on Special Characteristics	
If you an	swered No for all types, enter "Not Applicable" on Summary Form	



Wetland WFW-10 Cowardin Plant Classes and Cover

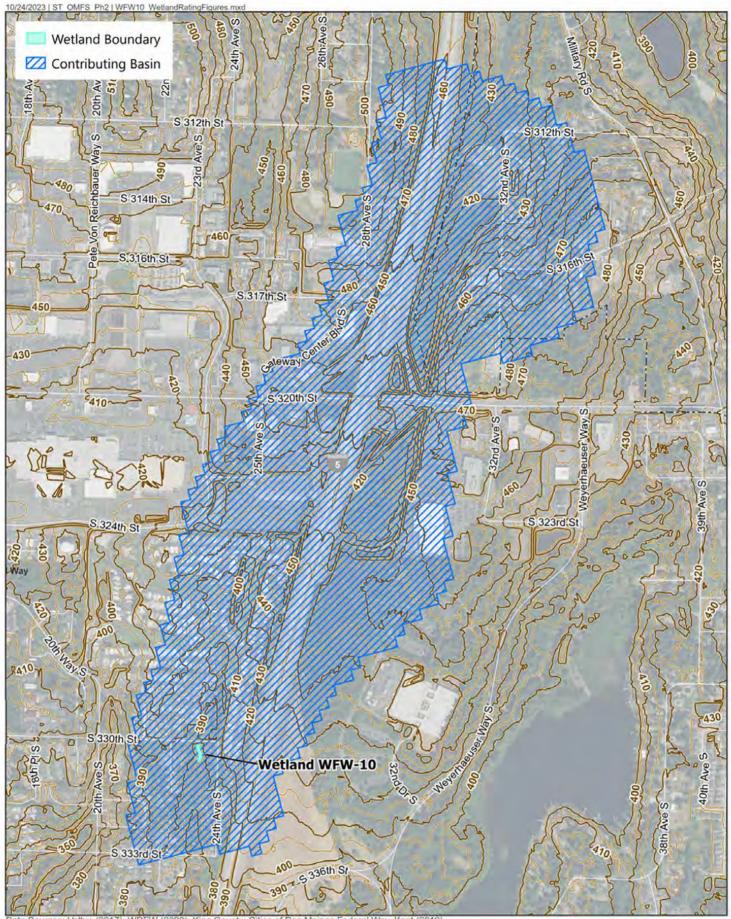


Data Sources: Valtus (2017), WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

200 Feet

100

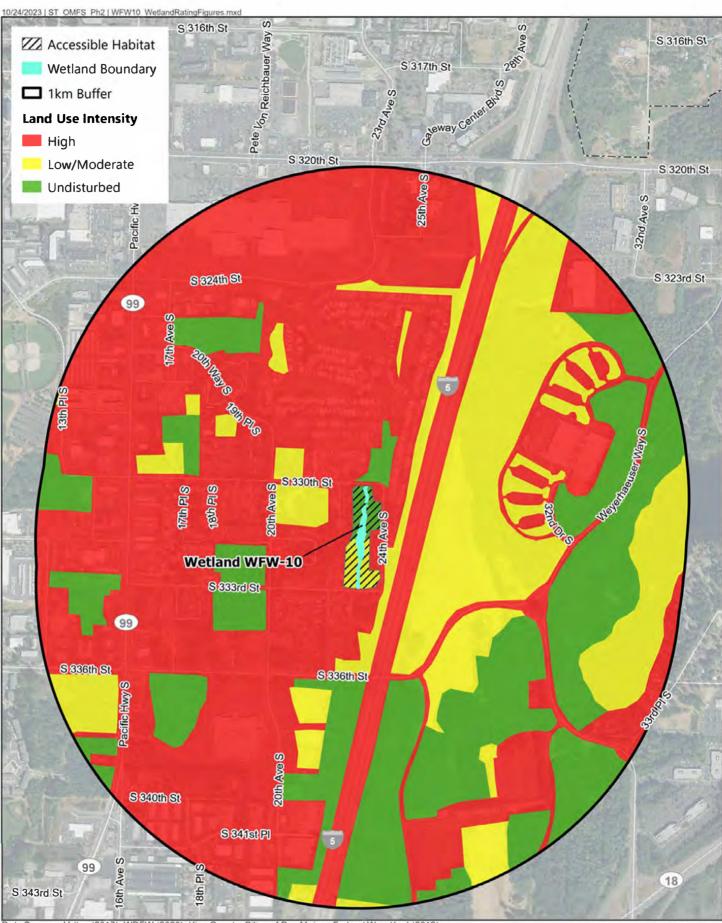
Wetland WFW-10 Hydroperiods



N 0 750 1,500 Feet

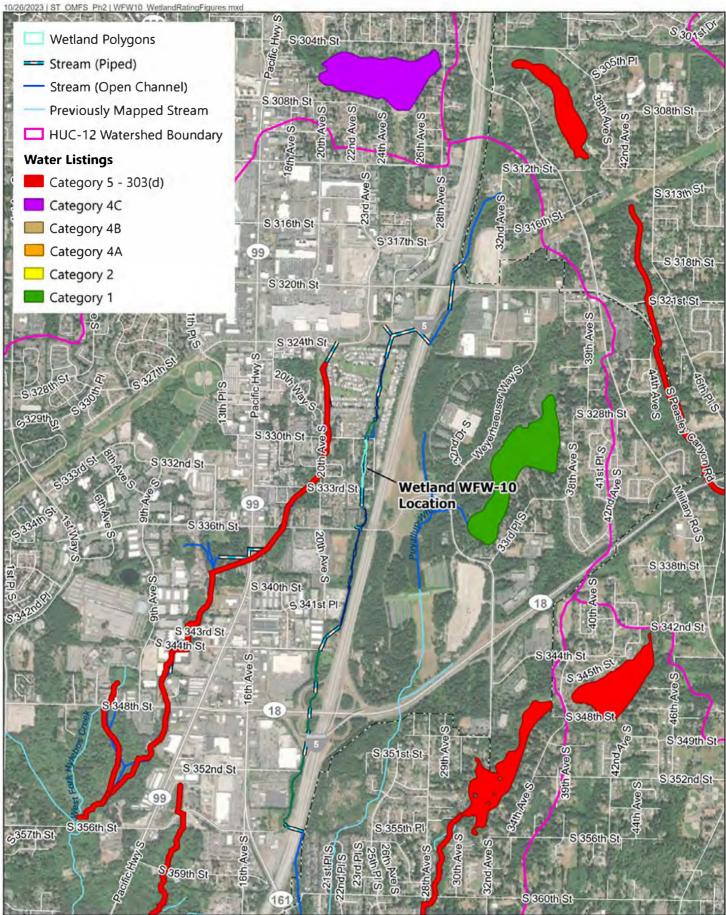
Wetland WFW-10 Contributing Basin

OMF South



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

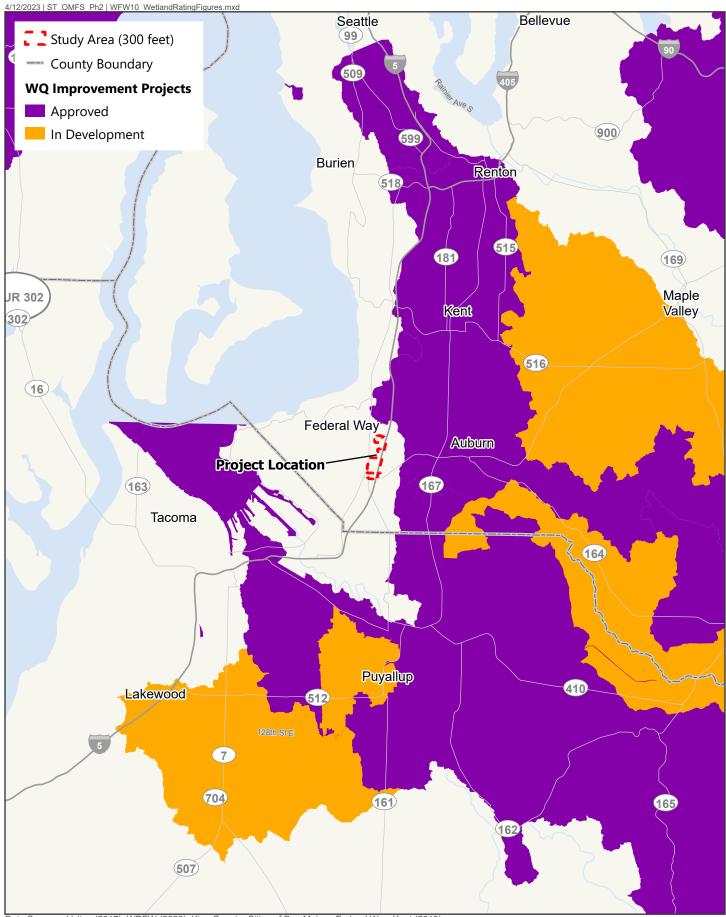
Wetland WFW-10 Land Use Intensity



3,000 Feet

1,500

Wetland WFW-10 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-10 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WFW-11		Date of site visit:	11/1/2019
Rated by A. Hoenig, A. Thom	Trained by Ecology? 🗹 Yes 🗌 No	Date of training	Oct. 2015
HGM Class used for rating Depressional	Wetland has multipl	e HGM classes? 🗌 `	Yes ⊡No
NOTE: Form is not complete with o	ut the figures requested (figures can	be combined).	

Source of base aerial photo/map ESRI / Google Earth Pro

OVERALL WETLAND CATEGORY _____ (based on functions 🗹 or special characteristics 🗋)

1. Category of wetland based on FUNCTIONS

	Category I - Total score = 23 - 27
	Category II - Total score = 20 - 22
Х	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	М	М	М	
Landscape Potential	М	М	L	
Value	М	Н	М	Total
Score Based on Ratings	6	7	5	18

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

- 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
- □ NO Saltwater Tidal Fringe (Estuarine) □ YES Freshwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

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

- ☑ NO go to 3
 If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.
- 3. Does the entire wetland unit meet all of the following criteria?
 - □ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ☑ NO go to 4

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

- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (slope can be very gradual),
 - ☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - $\hfill\square$ The water leaves the wetland without being impounded.
 - ☑ NO go to 5

□ YES - The wetland class is Slope

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

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

- ☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- $\hfill\square$ The overbank flooding occurs at least once every 2 years.
- ☑ NO go to 6

YES - The wetland class is **Riverine**

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

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

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:

A portion of the wetland is riverine and a portion is depressional. Depressional + Riverine along stream within boundary of depression, therefore 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).	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly		
constricted permanently flowing outlet.	points = 2	2
\Box Wetland has an unconstricted, or slightly constricted, surface outlet		
that is permanently flowing	points = 1	
\Box 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
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 > $\frac{1}{2}$ of area	points = 3	5
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 i	n manual.	
Area seasonally ponded is > $\frac{1}{2}$ total area of wetland	points = 4	2
Area seasonally ponded is > $\frac{1}{4}$ total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland	points $= 0$	
Total for D 1 Add the points	in the boxes above	9

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

unction of the sit	e?	
Yes = 1	No = 0	0
		1
Yes = 1	No = 0	I
Yes = 1	No = 0	0
re		
		1
Yes = 1	No = 0	
oints in the boxe	s above	2
	Yes = 1 Yes = 1 Yes = 1 re Yes = 1	Yes = 1 No = 0 Yes = 1 No = 0

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

Rating of Value If score is: $\Box 2 - 4 = H \ end{delta} 1 = M \ \Box 0 = L$ Record the rating on	the first page
Total for D 3 Add the points in the boxes above	1
which the unit is found)? $Yes = 2 No = 0$	
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (<i>answer YES if there is a TMDL for the basin in</i>	0
Yes = 1 No = 0	I
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	1
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 3.0. Is the water quality improvement provided by the site valuable to society?	

DEPRESSIONAL AND FLATS WETLAND	<u>)S</u>	
Hydrologic Functions - Indicators that the site functions to reduce flooding a	nd stream degra	dation
9 4.0. Does the site have the potential to reduce flooding and erosion?		
0 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	2
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	pointo 1	
permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet	points $= 1$	
that is permanently flowing	nointa 0	
0 4.2. <u>Depth of storage during wet periods</u> : Estimate the height of ponding above th	points = 0	
he outlet. For wetlands with no outlet, measure from the surface of permanent wate		
leepest part.	a of it dry, the	
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
\checkmark Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	Ũ
☐ The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points $= 1$	
Marks of ponding less than 0.5 ft (6 in)	points = 0	
0 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of	the area of	
pstream basin contributing surface water to the wetland to the area of the wetland		
\Box 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 $= 3$	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	ne boxes above	8
Lating of Site Potential If score is: \Box 12 - 16 = H \Box 6 - 11 = M \Box 0 - 5 = L Rec	cord the rating on	the first pa
0 5.0. Does the landscape have the potential to support hydrologic function of the si	ite?	
	es = 1 No = 0	0
$0.5.2$. Is > 10% of the area within 150 ft of the wetland in land uses that generate expression Y_{10}	cess runoff? es = 1 No = 0	1
5.3. Is more than 25% of the contributing basin of the wetland covered with intens		
and uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?		1

Total for D 5 Add the points in the boxes above Rating of Landscape Potential If score is: $\Box 3 = H \quad \boxdot 1 \text{ or } 2 = M \quad \Box 0 = L$ Record the rating on the first page

Yes = 1 No = 0

2

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	2
 Surface flooding problems are in a sub-basin farther down- 	2
gradient. points = 1	
\Box 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	2
Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$ Record the rating on	the first page

2
1
1
1
1
1

 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 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 (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) □ 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 (<i>see H 1.1 for list of strata</i>) 	2
Total for H 1 Add the points in the boxes above	7

Total for H 1Add the pointsRating of Site Potential If Score is: \Box 15 - 18 = H \Box 7 - 14 = M \Box 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 + (13.2 % moderate & low intensity land uses / 2) = 6.6%	
If total accessible habitat is:	0
	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:	
23.7 % undisturbed habitat + (21.2 % moderate & low intensity land uses / 2) = 34.3%	
Undisturbed habitat > 50% of Polygon points = 3	1
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2	
Undisturbed habitat 10 - 50% and 11 - 5 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	0
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2
\leq 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 2 < 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 polici	es? 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 provides and provides habitat for Threatened or Endangered species)	olant	
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	e	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	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 ValueIf Score is: $\Box 2 = H$ $\Box 1 = M$ $\Box 0 = L$ Re	cord the rating on	the first page

WDFW Priority Habitats

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

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

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

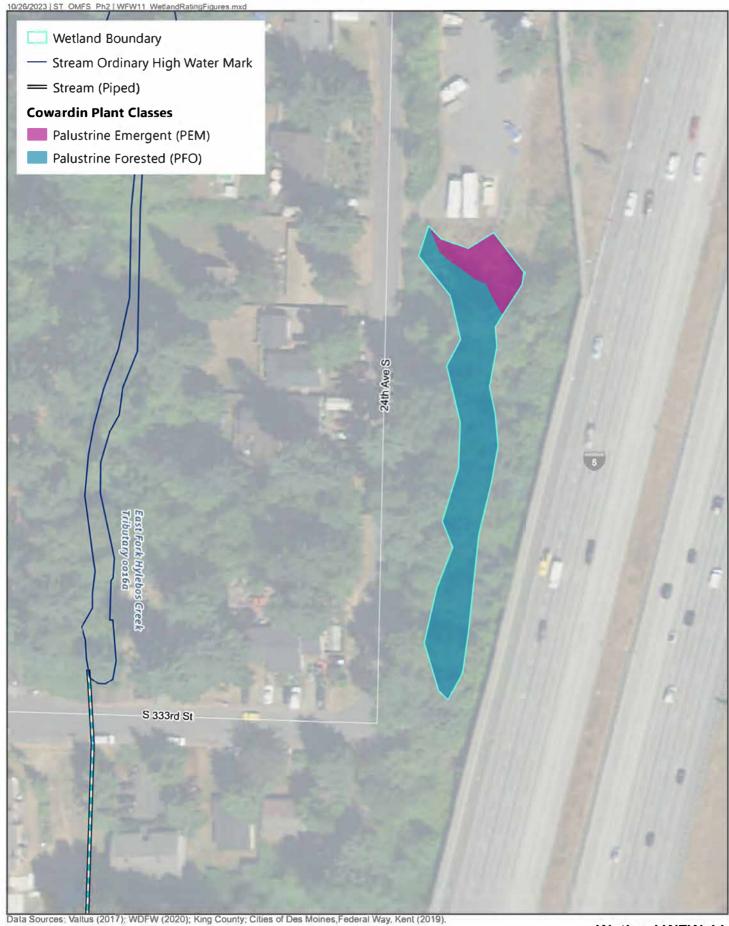
- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- 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

Check off any criteria that apply to the welland. 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 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 332-0-151? SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i> , see page 25) At least 3 to 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 fractures: tidal channels, depressions with open water, or contiguous freshwater wetlands. SC 2.0. Wetlands of High Conservation Value? SC 3.1. Is the wetland listed on the WDINR database as a Wetland of High Conservation Value? SC 4.2. Is the wetland listed on the WDINR database as a Wetland of High Conservation Value? SC 4.2. Is the wetland is a conton-rowing/Range that contains a Natural Heritage wetland? Import the wetland in a Seco	Wetland Type Cate		
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□ The dominant water regime is tidal. □ 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 32:-30-1517 □ □ Yes = Category1 No - Go to SC 1.2 SC 1.2. Is the wetland unit at teast 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 Sparina, see page 25) □ At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un- grazed or un-mowed grassland. □ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. □ Yes = Category1 No = Category1 I SC 2.0. Wetlands of High Conservation Value? □ Yes - Go to SC 2.2 No - Not WHCV SC 2.1. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1 dort.wa.gow/hho/refidesk/datassaer/whynhowetlands.pdf No = Not WHCV SC 3.2. Is the wetland (or any part of the unit) meet both the criteria for soils and veget	SC 1.0. I		
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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?	30 3.4.		
in Table 4 provide more than 30% of the cover under the canopy?			
Yes = is a Category I hog		$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No} = \text{Is not a bog}$	

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? 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. 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 (needs to	
	be measured near the bottom)	
	\Box Yes - Go to SC 5.1 \Box 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).	
	grazed or un-mowed grassland.	
	The wetland is larger than $\frac{1}{10}$ ac (4350 ft ²)	
	□ Yes = Category I □ No = Category II	
SC 6.0.	nterdunal 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	
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	
Categor	y of wetland based on Special Characteristics	
If you an	swered No for all types, enter "Not Applicable" on Summary Form	



75

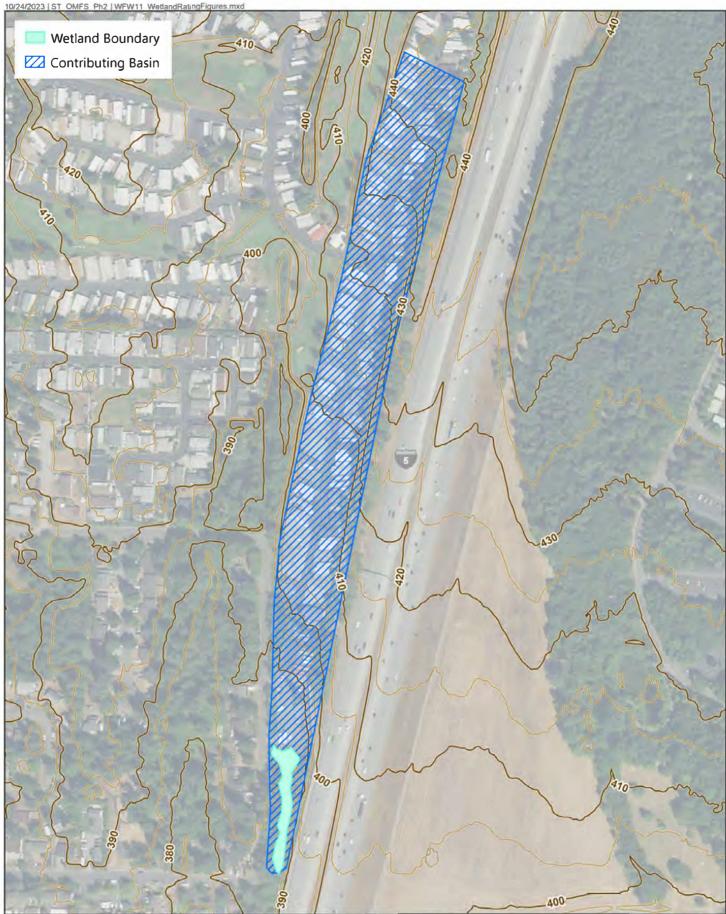
150 Feet

Wetland WFW-11 Cowardin Plant Classes and Cover





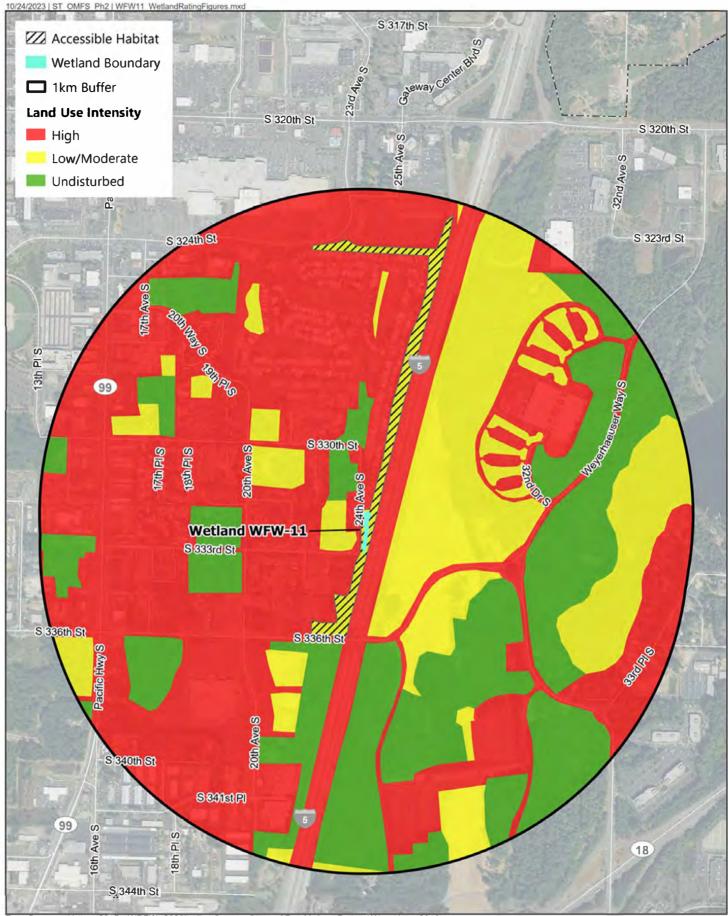
Wetland WFW-11 Hydroperiods

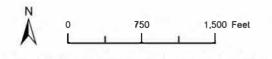


Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

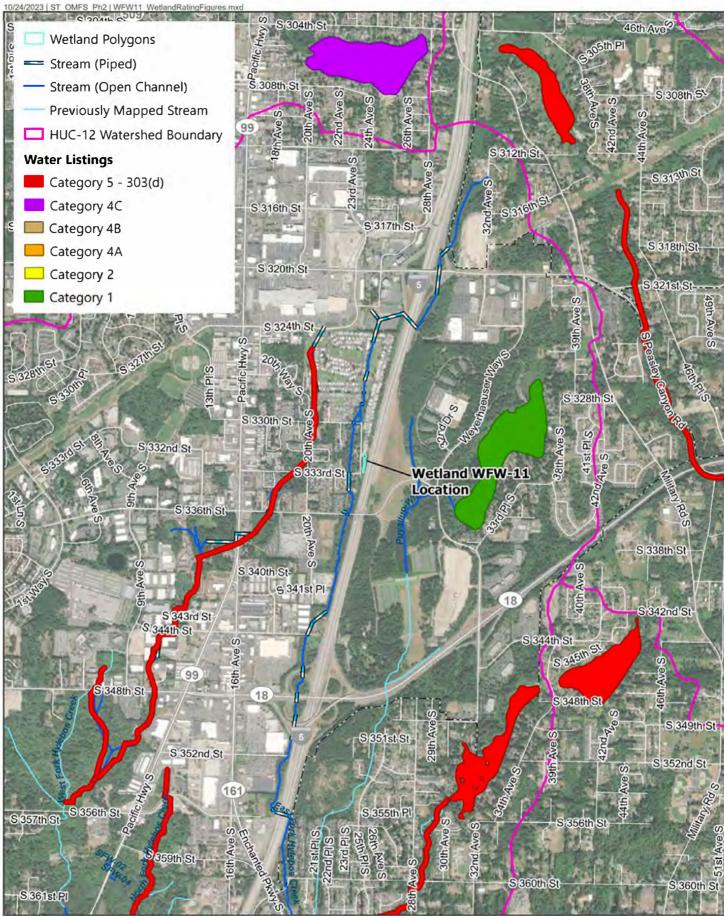
N 0 250 500 Feet

Wetland WFW-11 Contributing Basin





Wetland WFW-11 Land Use Intensity

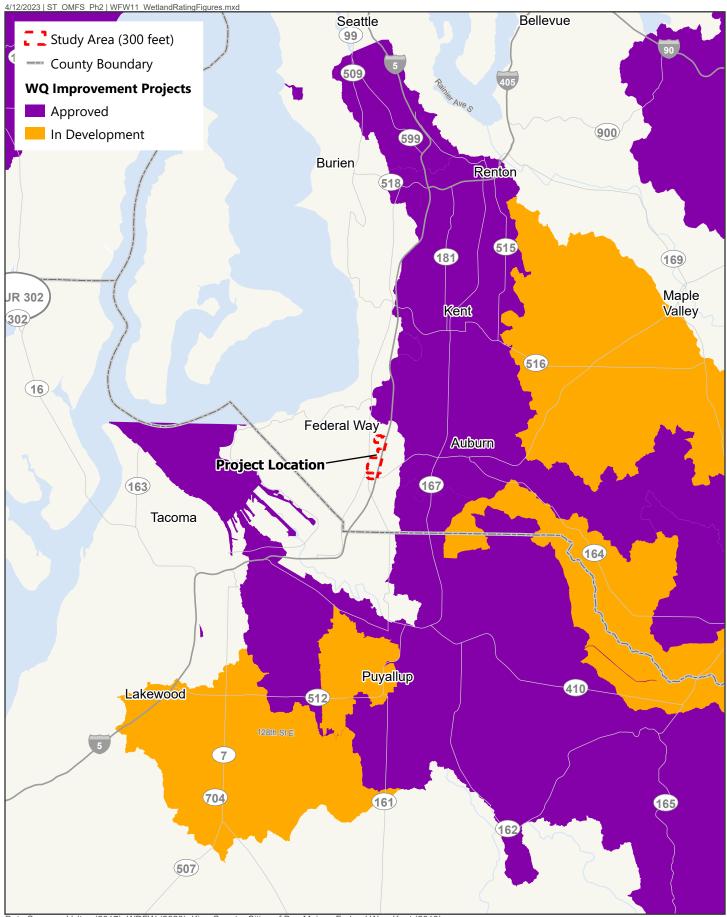


3,000 Feet

1,500

0

Wetland WFW-11 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-11 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or ID #):	WFW-12		Date of site visit:	11/14/2019
Rated by <u>A. Thom</u>		Trained by Ecology? ⊡Yes □No	Date of training	Oct. 2018
HGM Class used for rating	Riverine	Wetland has multiple	HGM classes?	Yes ⊡No
	-	out the figures requested (figures can	be combined).	
Source	of base aerial pho	oto/mar ESRI / Google Earth Pro		

OVERALL WETLAND CATEGORY _____ (based on functions ☑ or special characteristics □_)

1. Category of wetland based on FUNCTIONS

	Category I - Total score = 23 - 27
	Category II - Total score = 20 - 22
Х	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	1 (H, M, L)	
Site Potential	М	М	М	
Landscape Potential	Н	Н	L	
Value	L	Н	М	Total
Score Based on Ratings	6	8	5	19

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
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 We	stern Washington
For questions 1 -7, the criteria described must apply to the entire unit If hydrologic criteria listed in each question do not apply to the entire unit with multiple HGM classes. In this case, identify which hydrologic to Question 8.	unit being rated, you probably have a
1. Are the water levels in the entire unit usually controlled by tides ex	cept during floods?
✓ NO - go to 2 ✓ YES - the wetland c	class is Tidal Fringe - go to 1.1
1.1 Is the salinity of the water during periods of annual low flow	below 0.5 ppt (parts per thousand)?
NO - Saltwater Tidal Fringe (Estuarine) If your wetland can be classified as a Freshwater Tidal Fring If it is Saltwater Tidal Fringe it is an Estuarine wetland and used to score functions for estuarine wetlands.	
2. The entire wetland unit is flat and precipitation is the only source (> Groundwater and surface water runoff are NOT sources of water to the	
✓ NO - go to 3 If your wetland can be classified as a Flats wetland, use the	YES - The wetland class is Flats form for Depressional wetlands.
 3. Does the entire wetland unit meet all of the following criteria? ☐ The vegetated part of the wetland is on the shores of a bod plants on the surface at any time of the year) at least 20 ac ☐ At least 30% of the open water area is deeper than 6.6 ft (2) 	(8 ha) in size;
✓ NO - go to 4 ✓ YES - The wetland	class is Lake Fringe (Lacustrine Fringe)
 4. Does the entire wetland unit meet all of the following criteria? The wetland is on a slope (<i>slope can be very gradual</i>), The water flows through the wetland in one direction (unidir It may flow subsurface, as sheetflow, or in a swale without of The water leaves the wetland without being impounded. 	
☑ NO - go to 5	YES - The wetland class is Slope
NOTE : Surface water does not pond in these type of wetlands except depressions or behind hummocks (depressions are usually <3 ft dian	
 5. Does the entire wetland unit meet all of the following criteria? The unit is in a valley, or stream channel, where it gets inun from that stream or river, The overbank flooding occurs at least once every 2 years. 	ndated by overbank flooding

🗌 NO - go to 6

✓ YES - The wetland class is **Riverine**

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

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

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.

Image: NO - go to 8Image: 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:

RIVERINE AND FRESHWATER TIDAL FRINGE	WETLANDS	
Water Quality Functions - Indicators that the site functions to impro	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedin flooding event:	ments during a	
Depressions cover $> \frac{3}{4}$ area of wetland	points = 8	2
Depressions cover > $\frac{1}{2}$ area of wetland	points = 4	2
Depressions present but cover < 1/2 area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height classes)	, not Cowardin	
Trees or shrubs $> 2/3$ area of the wetland	points = 8	
\Box Trees or shrubs > $\frac{1}{3}$ area of the wetland	points = 6	8
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > $^{1}/_{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< 1/3$ area of the wetland	points $= 0$	
Total for R 1 Add the points in t	he boxes above	10

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

R 2.0. Does the landscape have the potential to support the water quality	function 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 incorporated area?	Yes = 1	No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1	No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1	No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland that a not listed in questions R 2.1 - R 2.4?		No. 0	1
Other Sources lots of trash	Yes = 1		
· · · · · · · · · · · · · · · · · · ·	pints in the boxe		5

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L Record the rating on the first page

R 3.0. Is the water quality improvement provided by the site va	luable to society?	
R 3.1. Is the wetland along a stream or river that is on the 303 tributary that drains to one within 1 mi?	(d) list or on a Yes = 1 No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL lin nutrients, toxics, or pathogens?	nits for Yes = 1 No = 0	0
R 3.3. Has the site been identified in a watershed or local plan for maintaining water quality? (<i>answer YES if there is a TMDL</i> <i>drainage in which the unit is found</i>)		0
Total for R 3	Add the points in the boxes above	0
Rating of Value If score is: $\Box 2 - 4 = H \Box 1 = M \bigcirc 0 = L$	Record the rating on	the first page

RIVERINE AND FRESHWATER TIDAL FRINGE V	VETLANDS	
Hydrologic Functions - Indicators that site functions to reduce flooding	and stream erosi	on
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 width of the stream or river channel (distance between banks). Calculate the ratio: 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 <u>NOT Cowardin</u> classes).</i>		_
Forest or shrub for $> \frac{1}{3}$ area OR emergent plants $> \frac{2}{3}$ area	points = 7	7
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 th	e boxes above	9

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

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 inco	rporated area? Yes = 1	No = 0	1
R 5.3 Is the up-gradient stream or river controlled by dams?	Yes = 0	No = 1	1
Total for R 5	Add the points in the boxe	s above	3

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

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

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.	
ABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
1.0. Does the site have the potential to provide habitat? 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the prested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be problemed for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is maller 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 	4
 1.2. Hydroperiods heck the types of water regimes (hydroperiods) present within the wetland. The water regime as to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of vdroperiods). □ Permanently flooded or inundated 4 or more types present: points = 3 □ Seasonally flooded or inundated 2 types present: points = 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 wetland □ Lake Fringe wetland 2 points 	2
1.3. Richness of plant species point the number of plant species in the wetland that cover at least 10 ft ² . ifferent patches of the same species can be combined to meet the size threshold and you do to thave to name the species. Do not include Eurasian milfoil, reed canarygrass, purple posestrife, Canadian thistle you counted: > 19 species 5 - 19 species points = 2 points = 1	1
< 5 species points = 0	
 1.4. Interspersion of habitats ecide from the diagrams below whether interspersion among Cowardin plants classes escribed in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) high, moderate, low, or none. <i>If you have four or more plant classes or three classes and ben water, the rating is always high.</i> None = 0 points Low = 1 point Moderate = 2 points I three diagrams this row are IGH = 3 points 	2

Total for H 1 Add the points in the boxes above	12
 ✓ 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) C 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>) C 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</i> C Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) 	3
of points. ☑ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) ☑ Standing snags (dbh > 4 in) within the wetland	
Check the habitat features that are present in the wetland. The number of checks is the number	
H 1.5. Special habitat features:	

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:		
0.3 % undisturbed habitat + (0 % moderate & low intensity land uses / 2) = 0.3%	6	
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 points =	= 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
19.6 % undisturbed habitat + (20.6 % moderate & low intensity land uses / 2) = 29.9	1%	
	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 =		
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 = (-	<i>.</i>	
≤ 50% of 1km Polygon is high intensity points =	= 0	
Total for H 2 Add the points in the boxes abo	ve -1	

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < < 1 = LRecord 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, o	r 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)	age)
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	v species
It is a Wetland of High Conservation Value as determined	by the
Department of Natural Resources	
It has been categorized as an important habitat site in a lo	ocal 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 2 1 = M 0 = L	Record the rating on the first page

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

WDFW Priority Habitats

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

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

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

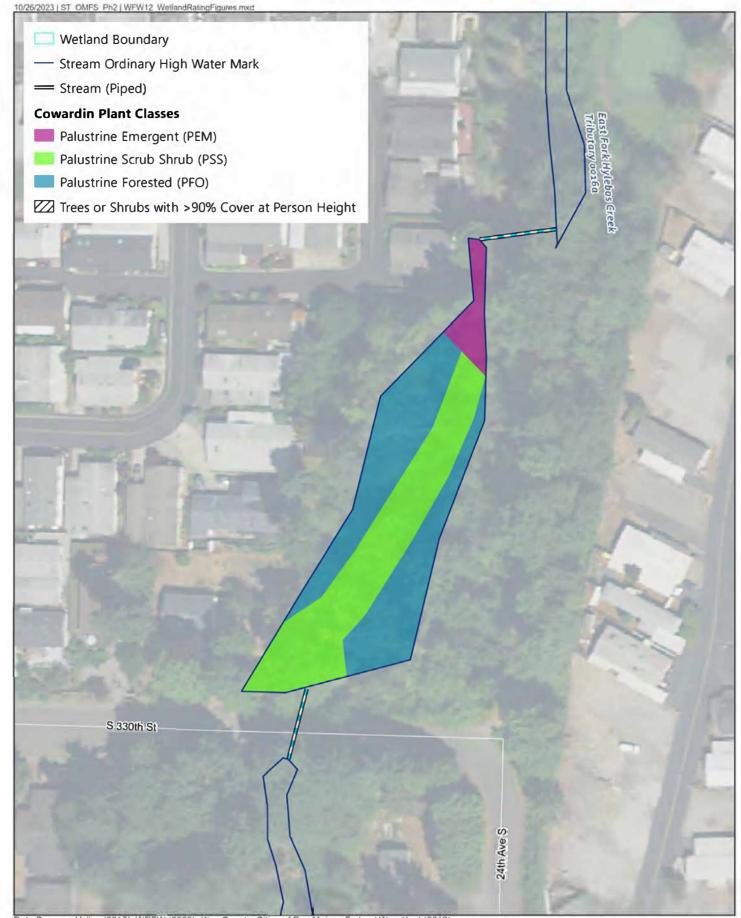
- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- 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	I Туре	Category
<u></u>		
	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	
	\square Yes - Go to SC 1.1 \square 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?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 1.2}$	
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	
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?	
	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
00.04	□ 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?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Not WHCV}$	
SC 3.0.		
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,	
	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?	
	\Box Yes - Go to SC 3.3 \Box 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?	
	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No - Go to SC 3.4}$	
	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	

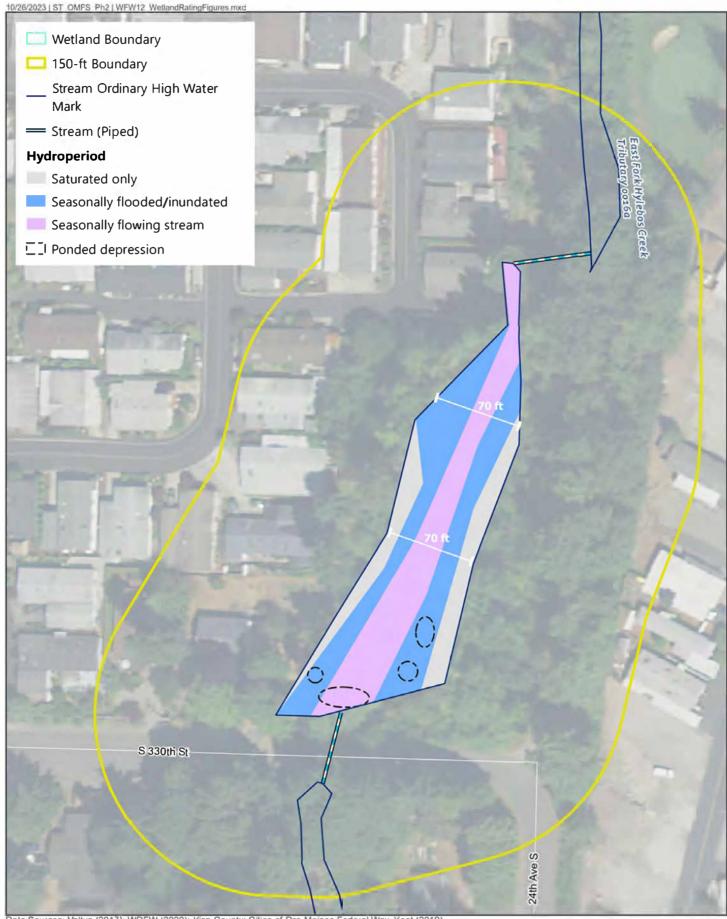
SC 4 0 E	orested Wetlands	
3C 4.0. F		
	Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If	
	you answer YES you will still need to rate the wetland based on its functions.	
	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	
	Vetlands 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. D	oes 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 $\frac{1}{10}$ ac (4350 ft ²)	
	□ Yes = Category I □ No = Category II	
SC 6.0. lı	nterdunal 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	
	\Box Yes - Go to SC 6.1 \Box 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)?	
	\Box Yes = Category I \Box 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?	
	$\Box \text{ Yes} = \text{Category III} \qquad \Box \text{ No} = \text{Category IV}$	
Category	of wetland based on Special Characteristics	
	-	
if you ans	swered No for all types, enter "Not Applicable" on Summary Form	



100 Feet

50

Wetland WFW-12 Cowardin Plant Classes and Cover

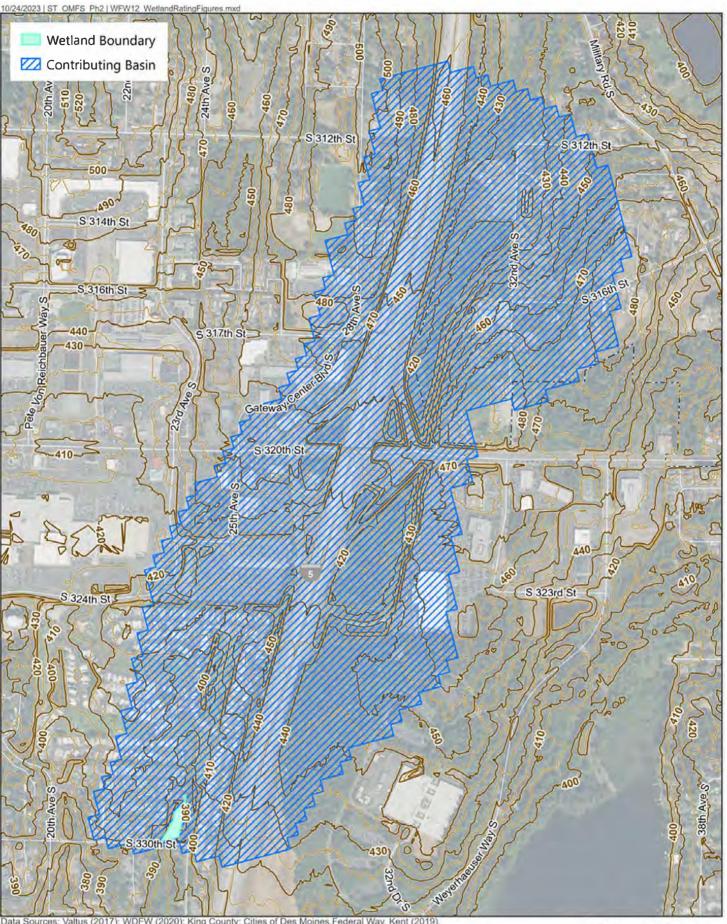


100 Feet

50

Wetland WFW-12 Hydroperiods



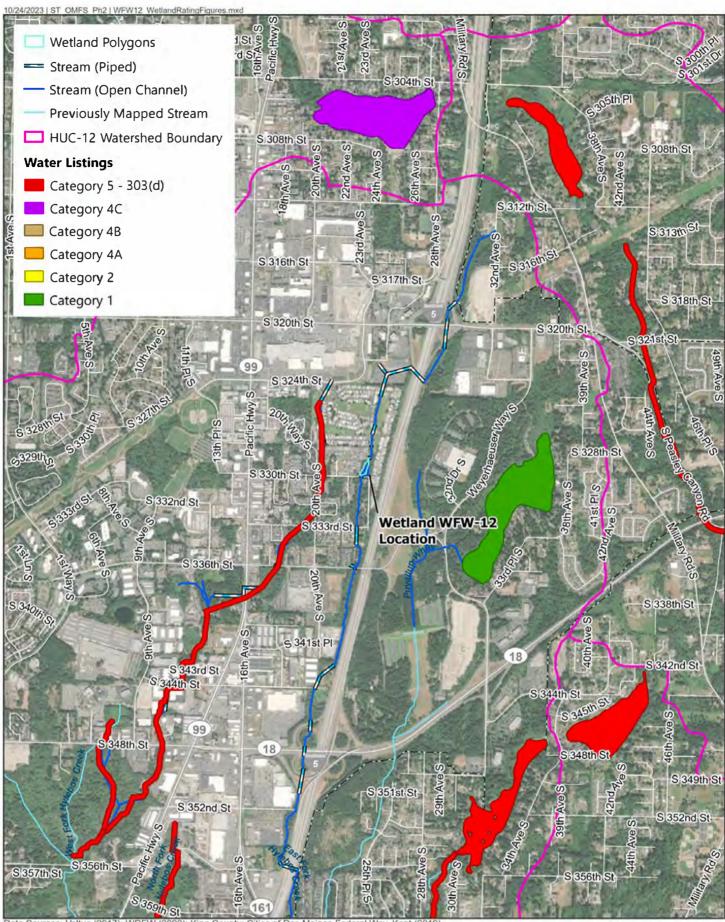


Wetland WFW-12 **Contributing Basin**



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

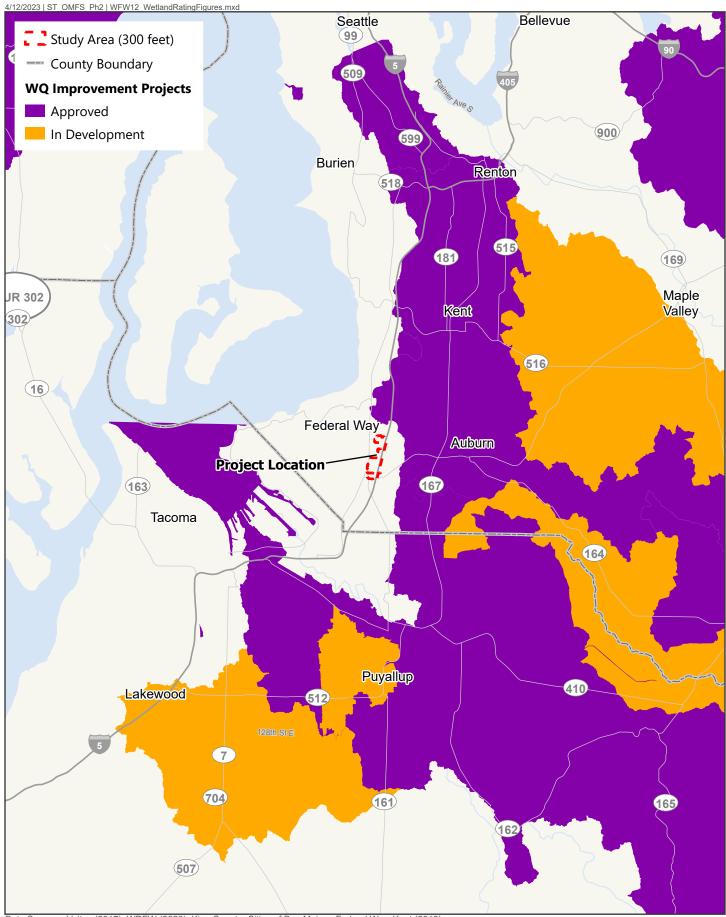
Wetland WFW-12 Land Use Intensity



3,000 Feet

1,500

Wetland WFW-12 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-12 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WFW-13		Date of site visit:	11/26/2019
Rated by A. Hoenig, M. Murphy, A. Tho	Trained by Ecology? ☑Yes □No	Date of training	15-Oct
HGM Class used for rating Slope	Wetland has multiple	e HGM classes? 🗌	Yes ⊡ No
NOTE: Form is not complete with or Source of base aerial photo		n be combined).	
OVERALL WETLAND CATEGORY IV	(based on functions ☑ or specia	al characteristics)
1. Category of wetland based on FUNC			
Category I - Total s	score = 23 - 27	Score for each	
Category II - Total	score = 20 - 22	function based	

 Category II - Total score = 20 - 22

 Category III - Total score = 16 - 19

 X
 Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	т (Н, М, L)	
Site Potential	L	L	L	
Landscape Potential	М	М	L	
Value	М	Н	L	Total
Score Based on Ratings	5	6	3	14

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	X

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 to Question 8.	go
1. Are the water levels in the entire unit usually controlled by tides except during floods?	
☑ NO - go to 2	
1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?	
□ NO - Saltwater Tidal Fringe (Estuarine) □ YES - Freshwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetland If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot is used to score functions for estuarine wetlands.	
2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.	
✓ NO - go to 3 If your wetland can be classified as a Flats wetland, use the form for Depressional wetlands.	
 3. Does the entire wetland unit meet all of the following criteria? The vegetated part of the wetland is on the shores of a body of permanent open water (without an plants on the surface at any time of the year) at least 20 ac (8 ha) in size; At least 30% of the open water area is deeper than 6.6 ft (2 m). 	ny
☑ NO - go to 4	ge)
 4. Does the entire wetland unit meet all of the following criteria? ✓ The wetland is on a slope (<i>slope can be very gradual</i>), ✓ The water flows through the wetland in one direction (unidirectional) and usually comes from see It may flow subsurface, as sheetflow, or in a swale without distinct banks. ✓ The water leaves the wetland without being impounded. 	ps.
□ NO - go to 5	
NOTE : Surface water does not pond in these type of wetlands except occasionally in very small and shallo depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).	W
 5. Does the entire wetland unit meet all of the following criteria? The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river, The overbank flooding occurs at least once every 2 years. 	

🗌 NO - go to 6

YES - The wetland class is **Riverine**

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

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

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

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

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

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

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

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

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

SLOPE WETLANDS		
Water Quality Functions - Indicators that the site functions to improve wa	ter quality	
S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft vertical elevation for every 100 ft of horizontal distance)	al drop in	
Slope is 1% or less	points = 3	1
Slope is > 1% - 2%	points = 2	I
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		0
organic (use NRCS definitions): Yes = 3	8 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the plants in the wetland means you have trouble seeing the soil surface (>75% cover), and uncut means not gra mowed and plants are higher than 6 in.		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	0
Dense, uncut, herbaceous plants > $\frac{1}{2}$ of area	points = 3	Ū
Dense, woody, plants > $\frac{1}{2}$ of area	points = 2	
Dense, uncut, herbaceous plants > $\frac{1}{4}$ of area	points = 1	
Does not meet any of the criteria above for plants	points = 0	
Total for S 1 Add the points in the box	kes above	1

Rating of Site Potential If score is: \Box 12 = H \Box 6 - 11 = M \boxdot 0 - 5 = LRecord the rating on the first page

S 2.0. Does the landscape have the potential to support the wa	ater quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of th land uses that generate pollutants?	e wetland in Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the we not listed in question S 2.1?	etland that are	1
Other Sources proximity to I-5	Yes = 1 No = 0	
Total for S 2	Add the points in the boxes above	2

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 soci	ety?		
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.		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			
Total for S 3 Add the point	ts in the boxe	es above	1
Rating of Value If score is: \Box 2 - 4 = H \bigtriangledown 1 = M \Box 0 = LRecord the rating on the second t			

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?					
the points appropriate for the description that best fits conditions in the wetland. Stems should be thick enough (usually > $1/8$ in), or dense enough, to remain erect during su	s 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: $\Box 1 = M \boxdot 0 = L$ Record t	he 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	1	
Rating of Landscape Potential If score is: \bigcirc 1 = M \bigcirc 0 = LRecord 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 problem	IS:	
The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g houses or salmon redds)	., points = 2	2
Surface flooding problems are in a sub-basin farther down-gradien No flooding problems anywhere downstream	t points = 1 points = 0	
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for S 6 Add the point	s in the boxes above	2
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.	
ABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
1.0. Does the site have the potential to provide habitat?	
1.1. Structure of plant community: Indicators are Cowardin classes and strata within the orested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be ombined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is maller 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 = 0 □ If the unit has a Forested class, check if: 1 structure: points = 0	0
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	
 1.2. Hydroperiods heck the types of water regimes (hydroperiods) present within the wetland. The water regime as to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of ydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally 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 Carpoints 	0
Freshwater tidal wetland 2 points 1.3. Richness of plant species 2	
out the number of plant species in the wetland that cover at least 10 ft ² . ifferent patches of the same species can be combined to meet the size threshold and you do to have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple posestrife, Canadian thistle you counted: > 19 species 5 - 19 species points = 1 < 5 species	0
1.4. Interspersion of habitats ecide from the diagrams below whether interspersion among Cowardin plants classes lescribed in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) high, moderate, low, or none. If you have four or more plant classes or three classes and been water, the rating is always high. Image: the second secon	0

 H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i> □ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) □ Standing snags (dbh > 4 in) within the wetland □ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) □ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) □ 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</i> □ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) 	0
Total for H 1 Add the points in the boxes above	0

Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 9 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 + (1.6 % moderate & low intensity land uses / 2) = 0.8	%
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:	
24.4 % undisturbed habitat + (22 % moderate & low intensity land uses / 2) = 35.	4%
	1
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 = 0	(-2) -2
≤ 50% of 1km Polygon is high intensity points	
Total for H 2 Add the points in the boxes abo	

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < < 1 = LRecord 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, o	r 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)	age)
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 lo	ocal 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 3 0 = L	Record the rating on the first page

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

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **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
<u></u>		
	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	
	\square Yes - Go to SC 1.1 \square No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary	
50 1.1.	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or	
	Scientific Reserve designated under WAC 332-30-151?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 1.2}$	
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	
SC 2.0.	Wetlands of High Conservation Value (WHCV)	
	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	
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 D 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.		
	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?	
00.00	\Box Yes - Go to SC 3.3 \Box 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.	Does an area with peats or mucks have more than 70% cover of mosses at ground	
30 3.3.	level, AND at least a 30% cover of plant species listed in Table 4?	
	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No - Go to SC 3.4}$	
	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	
30 4.0.		
	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? 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.	
	200 years old OR the species that make up the canopy have an average diameter	
	(dbh) exceeding 21 in (53 cm).	
	☐ Yes = Category I	
SC 5.0.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs</i>	
	to be measured near the bottom)	
	$\Box \text{ Yes - Go to SC 5.1} \qquad \Box \text{No} = \text{Not a wetland in a coastal lagoon}$	
CC E 4		
	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	
	\square Yes - Go to SC 6.1 \square 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	
000.1.	(rates H,H,H or H,H,M for the three aspects of function)?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 6.2}$	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
30 0.Z.		
00.00	$\Box \text{ Yes} = \textbf{Category II} \qquad \Box \text{ No} - \text{Go to } \textbf{SC 6.3}$	
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	
-	y of wetland based on Special Characteristics	
If you an	swered No for all types, enter "Not Applicable" on Summary Form	



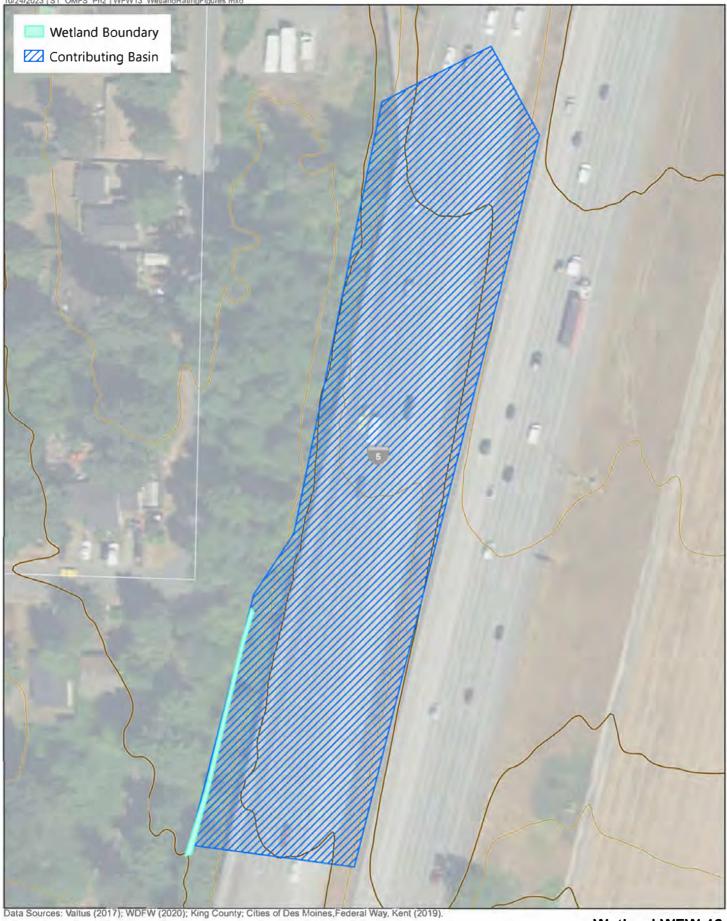
Wetland WFW-13 Cowardin Plant Classes and Cover



N 0 40 80 Feet

Wetland WFW-13 Hydroperiods

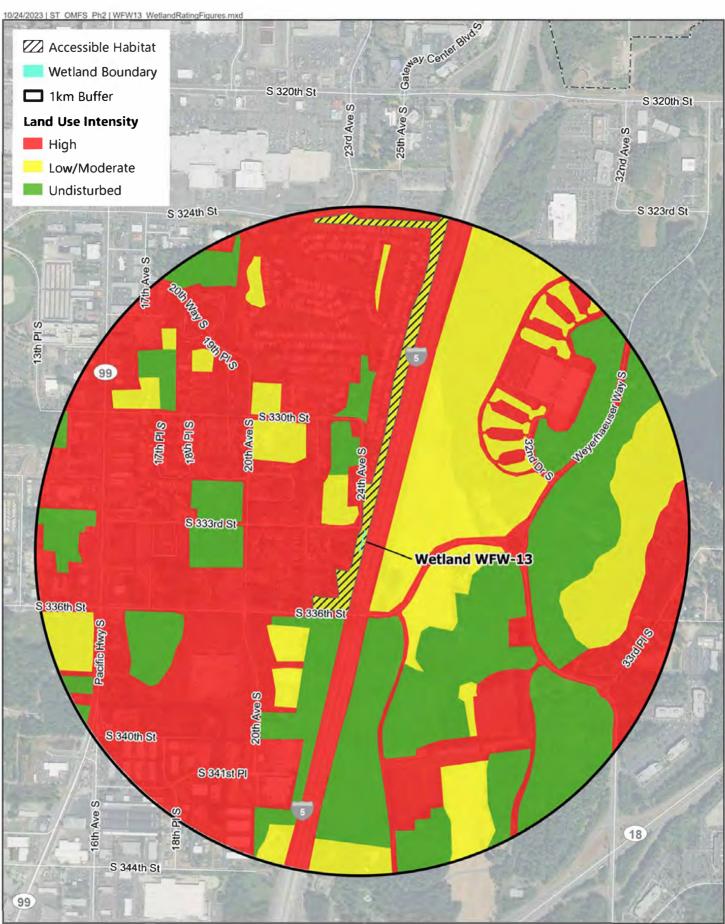
OMF South



N 0 60 120 Feet

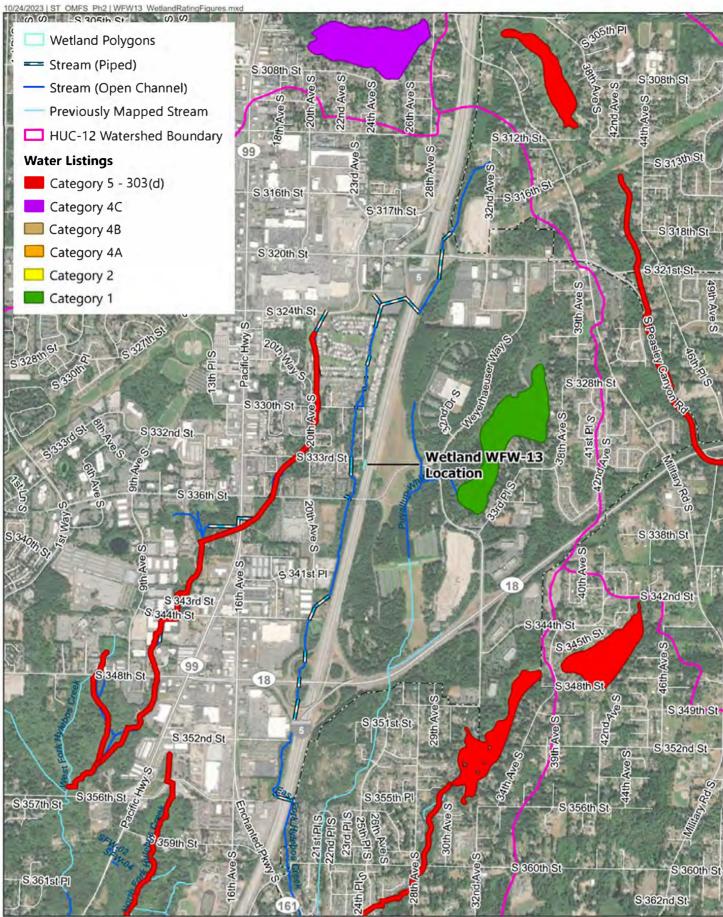
Wetland WFW-13 Contributing Basin

OMF South



N 0 750 1,500 Feet

Wetland WFW-13 Land Use Intensity

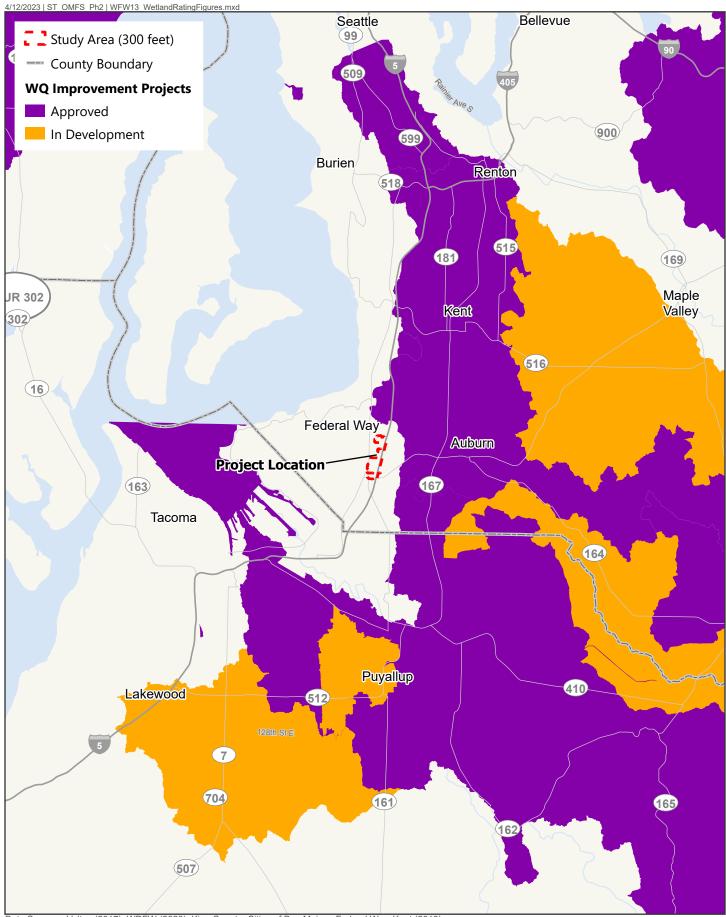


3,000 Feet

1,500

0

Wetland WFW-13 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-13 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): WFW-14				Date of site visit:	12/3/2019	
Rated by T. Parry, A	A. Thom	Tra	ained by E	cology? ⊡Yes □No	Date of training	Oct-18	
HGM Class used for rating Depressional Wetland has multiple HGM classes? Yes Yes							
NOTE: Fo	orm is not complet Source of base ae		•	r equested (<i>figures ca</i> gle Earth Pro	n be combined).		
OVERALL WETLAND CATEGORY (based on functions I or special characteristics)							
1. Category of wetland based on FUNCTIONS							
	Category	I - Total score	= 23 - 27		Score for each		
	Category	II - Total scor	e = 20 - 22		function based		
				on three			
			ratings				
			(order of ratings				
	Improving	Hydrologic	Habitat		is not		
FUNCTION	Water Quality	, ,			important)		
	List app	ropriate rating	(H, M, L)				

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	т (Н, М, L)	
Site Potential	L	L	L	
Landscape Potential	М	Н	L	
Value	М	Н	М	Total
Score Based on Ratings	5	7	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	X

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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	

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

☑ NO - go to 6

YES - The wetland class is **Riverine**

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

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

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.

Image: NO - go to 8Image: 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 riverine and a portion is depressional. Depressional + Riverine along stream within boundary of depression, therefore 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).	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		0
organic (use NRCS definitions).	Yes = 4 No = 0	U
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-sh	nrub, and/or	
Forested Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points $= 5$	0
Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area	points = 3	0
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	in manual.	
Area seasonally ponded is > $\frac{1}{2}$ total area of wetland	points $= 4$	0
Area seasonally ponded is $> \frac{1}{4}$ total area of wetland	points = 2	
Area seasonally ponded is $< \frac{1}{4}$ total area of wetland	points $= 0$	
* *	n the boxes above	2

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

D 2.0. Does the landscape have the potential to support the w	ater quality function of the	site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1	No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land	uses that		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 w	etland 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 boxe	s above	2

Rating of Landscape Potential If score is: 3 or $4 = H \square 1$ or $2 = M \square 0 = LRecord$ the rating on the first page

D 3.0. Is the water quality improvement provided by the site v	aluable to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to river, lake, or marine water that is on the 303(d) list?	o a stream, Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic	resource is on the 303(d) list? Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan for maintaining water quality (<i>answer YES if there is a TMDL</i> <i>which the unit is found</i>)?	•	0
Total for D 3	Add the points in the boxes above	1
Rating of Value If score is: $\square 2 - 4 = H \lor 1 = M \square 0 = L$	Record the rating or	the first page

DEPRESSIONAL AND FLATS WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and	- I stream degr	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	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		
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 $= 7$	0
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 points = 1	
Wetland is flat but has small depressions on the surface that trap water		
Marks of ponding less than 0.5 ft (6 in) D 4.3. <u>Contribution of the wetland to storage in the watershed</u> : <i>Estimate the ratio of ta</i>	points = 0	
upstream basin contributing surface water to the wetland to the area of the wetland u		
□ 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 $= 0$ points $= 5$	
Total for D 4 Add the points in the base		2
Rating of Site Potential If score is: $\Box 12 - 16 = H \Box 6 - 11 = M \boxdot 0 - 5 = L$ Record		
		line ill'st page
D 5.0. Does the landscape have the potential to support hydrologic function of the sit	1	4
D 5.1. Does the wetland unit receive stormwater discharges? Yes		1
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate exc	sess runon?	
		1
		1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensi		
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensi land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	ve human	1
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D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensi land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes : Total for D 5 Add the points in the b	ve human = 1 No = 0 poxes above	1 3
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensi land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes Total for D 5 Add the points in the b Rating of Landscape Potential If score is: ☑ 3 = H □ 1 or 2 = M □ 0 = L	ve human = 1 No = 0	1 3
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 D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensi land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Total for D 5 Add the points in the t Rating of Landscape Potential If score is: □ 3 = H □ 1 or 2 = M □ 0 = L Record 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 matches conditions around the wetland unit being rated. Do not add points. Choose score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradie areas where flooding has damaged human or natural resources (e.g., house flooding occurs in a sub-basin that is immediately down-gradient. Surface flooding problems are in a sub-basin farther down-gradient. 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 	ve human = 1 No = 0 poxes above the rating on that best the highest nt into s or salmon points = 2 points = 1 points = 1	1 3 the first page
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensi land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes : Yes : Yes : Total for D 5 Add the points in the b Rating of Landscape Potential If score is: ☑ 3 = H □ 1 or 2 = M □ 0 = L Record 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 matches conditions around the wetland unit being rated. Do not add points. Choose score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradie areas where flooding has damaged human or natural resources (e.g., house flooding occurs in a sub-basin that is immediately down-gradient of unit. □ • Surface flooding problems are in a sub-basin farther down-gradient. □ • 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	ve human = 1 No = 0 poxes above the rating on that best the highest nt into s or salmon points = 2 points = 1 points = 1 points = 0	1 3 the first page
 D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensi land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes: Total for D 5 Add the points in the t Rating of Landscape Potential If score is: 3 = H □ 1 or 2 = M □ 0 = L Record 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 matches conditions around the wetland unit being rated. Do not add points. Choose score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradie areas where flooding has damaged human or natural resources (e.g., house flooding occurs in a sub-basin that is immediately down-gradient. Surface flooding problems are in a sub-basin farther down-gradient. 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 	ve human = 1 No = 0 poxes above the rating on that best the highest nt into s or salmon points = 2 points = 1 points = 1	1 3 the first page

Total for D 6 **Rating of Value** If score is: $\boxed{2} \cdot 4 = H$ $\boxed{1} = M$ 0 = L

Record the rating on the first page

2

Add the points in the boxes above

These questions apply to wetlands of all HGM classes.	
ABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
I 1.0. Does the site have the potential to provide habitat?	
I 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 ombined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is maller than 2.5 ac. Add the number of structures checked.	
 ☐ Aquatic bed 4 structures or more: points = 4 ☑ Emergent ③ Scrub-shrub (areas where shrubs have > 30% cover) ② Scrub-shrub (areas where trees 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 	0
I 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime as 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 Seasonally flooded or inundated Occasionally flooded or inundated Occasionally flooded or inundated Sturated only Sturated only Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland 	0
I 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 Dosestrife, Canadian thistle	0
you counted:> 19 speciespoints = 25 - 19 speciespoints = 1< 5 species	
I 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

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

Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 9 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 we		
Calculate:	,	
0 % undisturbed habitat + (1.1 % moderate & low	intensity land uses $/2$) = 0.55%	
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	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
25.2 % undisturbed habitat + (21.4 % moderate & low	intensity land uses / 2) = 35.9%	
		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 = LRecord 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	r 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)	age)
It provides habitat for Threatened or Endangered species	(any plant
or animal on the state or federal lists)	
It is mapped as a location for an individual WDFW priority	species
It is a Wetland of High Conservation Value as determined	by the
Department of Natural Resources	
It has been categorized as an important habitat site in a lo	cal 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 2 1 = M 0 = L	Record the rating on the first page

Rating of value if Score is: $2 = H \lor 1 = M \lor 0 = 1$

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

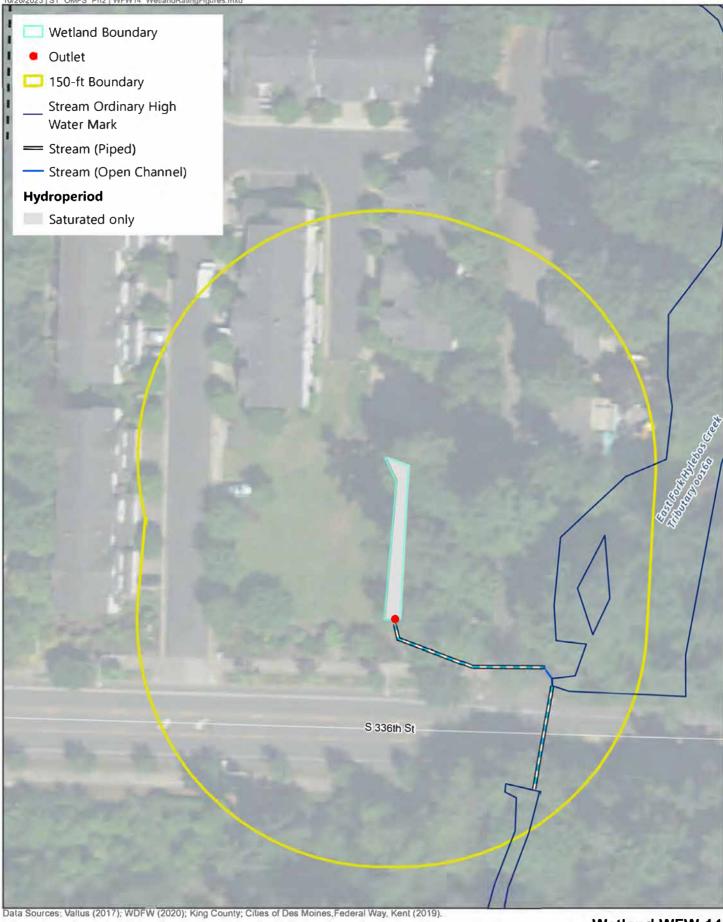
Wetland Type		Category
Check of	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
	Estuarine Wetlands	
00 1.0.	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	\Box Yes - Go to SC 1.1 \Box No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary	
30 1.1.	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or	
	Scientific Reserve designated under WAC 332-30-151?	
SC 1.2.	□ Yes = Category I □ No - Go to 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 unit at least 1 ac in size and meets at least two of the following three conditions? The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation,	
	grazing, and has less than 10% cover of non-native plant species. (If non-native	
	species are <i>Spartina</i> , see page 25) At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or	
	un-grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
00.00	☐ Yes = Category I ☐ No = Category II	
	Wetlands of High Conservation Value (WHCV)	
30 2.1.	Has the WA Department of Natural Resources updated their website to include the list	
	of Wetlands of High Conservation Value? Ves - Go to SC 2.2	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
SC 2.2.		
<u> </u>	□ 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	
0004	□ 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?	
<u> </u>	□ Yes = Category I □ No = Not WHCV	
SC 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	
CC 2 4	wetland based on its functions.	
SC 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.		
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?	
60.2.2	$\Box \text{ Yes - Go to } \textbf{SC 3.3} \qquad \Box \text{ No} = \textbf{Is not a bog}$	
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,	
SC 3.4.	the wetland is a bog. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,	
00 0.4.		
	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	

Wetland name or number: WFW-14

SC 4 0	Forested Wetlands	
00 4.0.	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? 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.	
	200 years old OR the species that make up the canopy have an average diameter	
	(dbh) exceeding 21 in (53 cm).	
	\Box Voc. Cotogory I. \Box No. Not a forested watland for this section	
SCEA	Yes = Category I	
SC 5.0.		
	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)	
	\Box Yes - Go to SC 5.1 \Box 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).	
	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 is larger than $1/_{10}$ ac (4350 ft ²)	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Category I}$	
SC 6 0	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 Ves - Go to SC 6.1 Ves - Go to SC 6.1	
SC 6.1.	— — —	
	(rates H,H,H or H,H,M for the three aspects of function)?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 6.2}$	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
00 0.2.	$\Box \text{ Yes} = \text{Category II} \qquad \Box \text{ No - Go to SC 6.3}$	
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	
30 0.3.	and 1 ac?	
	$\Box \text{ Yes} = \text{Category III} \qquad \Box \text{No} = \text{Category IV}$	
Catogor	y of wetland based on Special Characteristics	
-		
n you an	swered No for all types, enter "Not Applicable" on Summary Form	



Wetland WFW-14 Cowardin Plant Classes and Cover

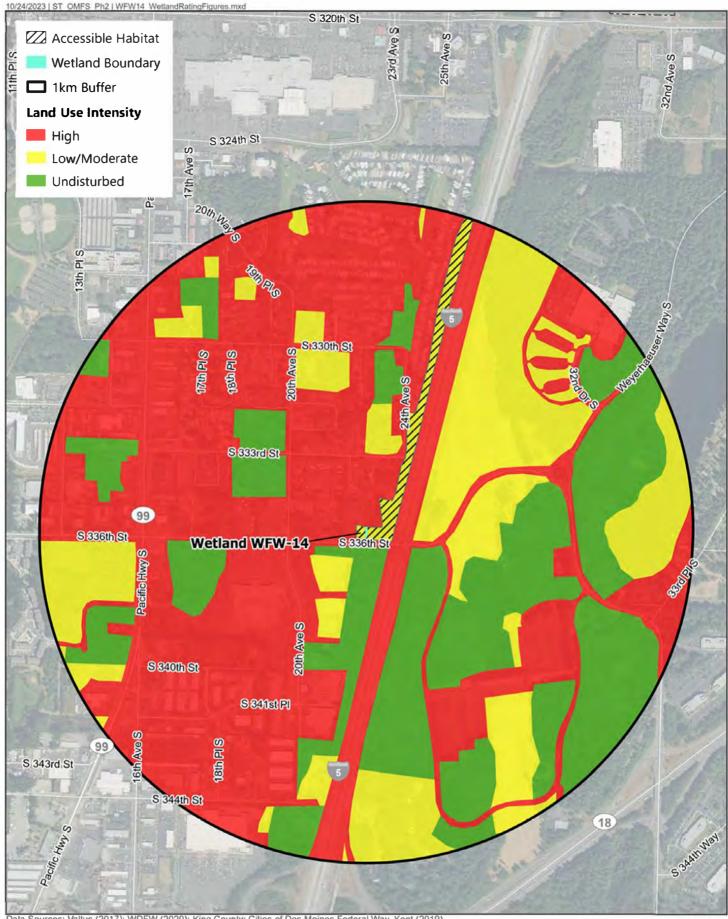


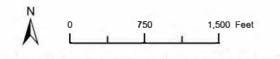
0 30 60 Feet



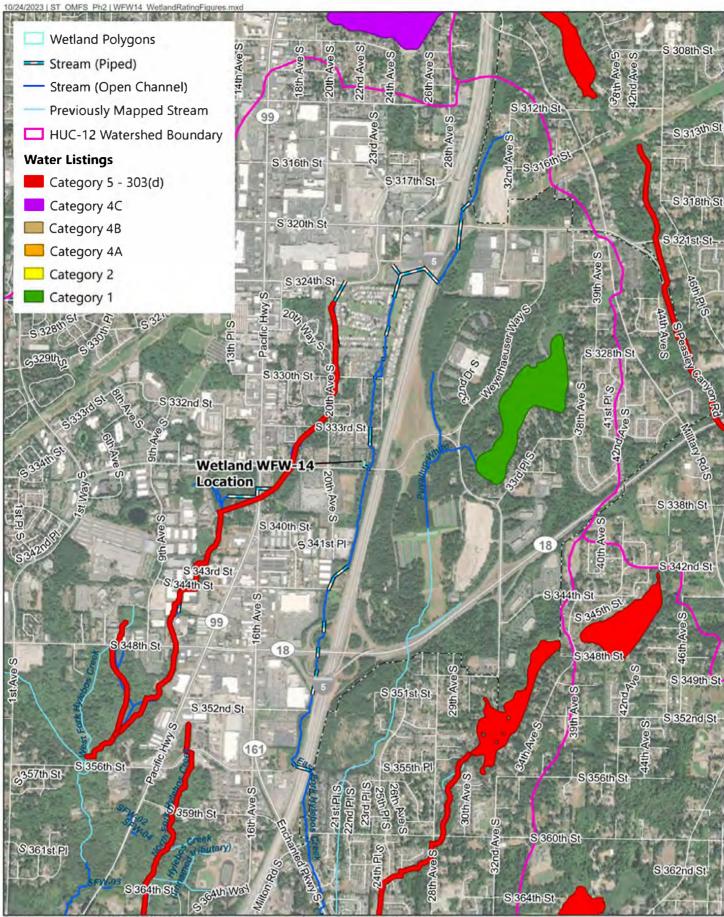
N 40 80 Feet

Wetland WFW-14 **Contributing Basin**





Wetland WFW-14 Land Use Intensity

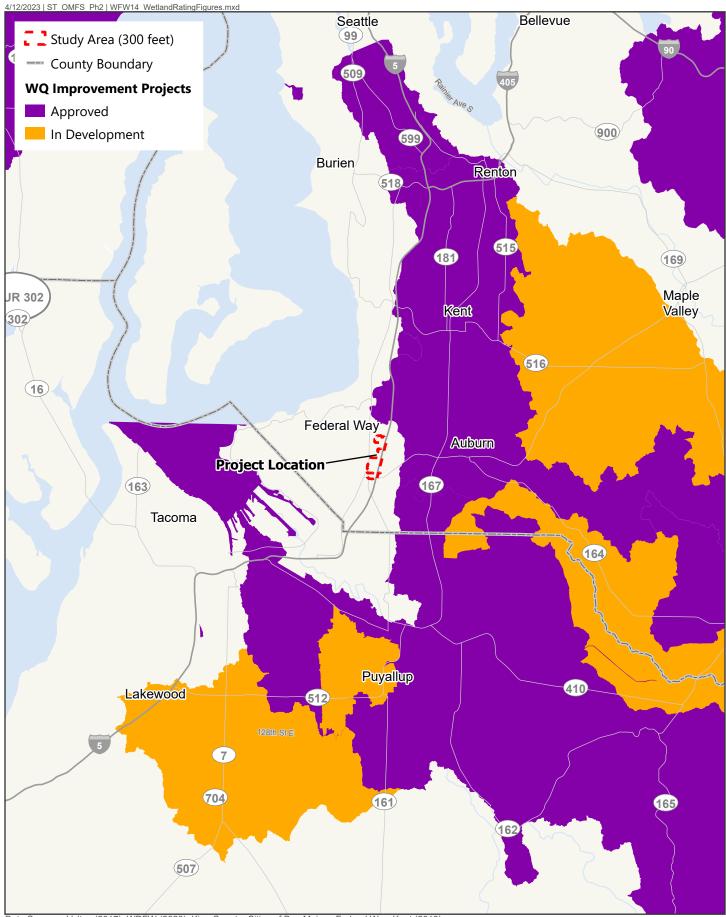


Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

3,000 Feet

1,500

Wetland WFW-14 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-14 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WFW-15	Date of site visit: 4/20/2023			
Rated by Kaylee Moser and A. Thom	rained by Ecology? ☑Yes ☐No Date of training Oct. 2018			
HGM Class used for rating Riverine	Wetland has multiple HGM classes? ☐ Yes ☑ No			
NOTE: Form is not complete with out the figures requested (<i>figures can be combined</i>). Source of base aerial photo/mar ESRI / Google Earth Pro				

OVERALL WETLAND CATEGORY ____ II ____ (based on functions ☑ or special characteristics □__)

1. Category of wetland based on FUNCTIONS

	Category I - Total score = 23 - 27
Х	Category II - Total score = 20 - 22
	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
List appropriate rating (H, M, L)				
Site Potential	Н	М	М	
Landscape Potential	Н	М	L	
Value	L	Н	Н	Total
Score Based on Ratings	7	7	6	20

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	x

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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	

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 levels in the entire unit us	ually controlled by tides except during floods?		
☑ NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1		
1.1 Is the salinity of the water during	periods of annual low flow below 0.5 ppt (parts per thousand)?		
	as a Freshwater Tidal Fringe use the forms for Riverine wetlands. an Estuarine wetland and is not scored. This method cannot be		
2. The entire wetland unit is flat and precipi Groundwater and surface water runoff are	itation is the only source (>90%) of water to it. NOT sources of water to the unit.		
✓ NO - go to 3 If your wetland can be classified a	YES - The wetland class is Flats as a Flats wetland, use the form for Depressional wetlands.		
 3. Does the entire wetland unit meet all of the following criteria? The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size; At least 30% of the open water area is deeper than 6.6 ft (2 m). 			
☑ NO - go to 4	YES - The wetland class is Lake Fringe (Lacustrine Fringe)		
 4. Does the entire wetland unit meet all of the following criteria? The wetland is on a slope (<i>slope can be very gradual</i>), The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks. The water leaves the wetland without being impounded. 			
☑ NO - go to 5	☐ YES - The wetland class is Slope		
NOTE : Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).			
 5. Does the entire wetland unit meet all of	channel, where it gets inundated by overbank flooding		

 $\underline{\checkmark}$ The overbank flooding occurs at least once every 2 years.

🗌 NO - go to 6

✓ YES - The wetland class is Riverine

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

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

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.

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:

RIVERINE AND FRESHWATER TIDAL FRINGE	WETLANDS	
Water Quality Functions - Indicators that the site functions to impro	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedir flooding event:	ments during a	
Depressions cover $> 3/4$ area of wetland	points = 8	4
Depressions cover > $\frac{1}{2}$ area of wetland	points = 4	4
Depressions present but cover < 1/2 area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height classes)	, not Cowardin	
Trees or shrubs $> \frac{2}{3}$ area of the wetland	points = 8	
\Box Trees or shrubs > $\frac{1}{3}$ area of the wetland	points = 6	8
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > $^{1}/_{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< 1/3$ area of the wetland	points = 0	
Total for R 1 Add the points in t	he boxes above	12

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

R 2.0. Does the landscape have the potential to support the water quality function 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 incorporated area?	Yes = 1	No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1	No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses tha generate pollutants?	t Yes = 1	No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland that not listed in questions R 2.1 - R 2.4?	at are		1
Other Sources proximity to I-5	Yes = 1	No = 0	
Total for R 2 Add the	points in the boxe	s above	5

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L Record the rating on 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 tributary that drains to one within 1 mi?	(d) list or on a Yes = 1 No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL lin nutrients, toxics, or pathogens?	nits for Yes = 1 No = 0	0
R 3.3. Has the site been identified in a watershed or local plan for maintaining water quality? (<i>answer YES if there is a TMDL</i> <i>drainage in which the unit is found</i>)		0
Total for R 3	Add the points in the boxes above	0
Rating of Value If score is: $\Box 2 - 4 = H \Box 1 = M \bigcirc 0 = L$	Record the rating on	the first page

RIVERINE AND FRESHWATER TIDAL FRINGE W	ETLANDS	
Hydrologic Functions - Indicators that site functions to reduce flooding a	ind stream erosi	on
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 width of the stream or river channel (distance between banks). Calculate the ratio: 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 <u>NOT Cowardin</u> classes).</i>		
Forest or shrub for > $^{1}/_{3}$ area OR emergent plants > $^{2}/_{3}$ area	points = 7	1
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	e boxes above	9

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

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 inco	rporated 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 boxe	s above	2

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

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

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.	
ABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
1.0. Does the site have the potential to provide habitat?	
1.1. Structure of plant community: <i>Indicators are Cowardin classes and strata within the</i> 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 maller 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) ☐ Forested (areas where trees have > 30% cover) ☐ Structures: 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 	2
1 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime as 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 Seasonally flooded or inundated Occasionally flooded or inundated 2 types present: points = 1 Saturated only Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland 	3
Freshwater tidal wetland 2 points	
I 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 posestrife, Canadian thistle if you counted: > 19 species 5 - 19 species points = 2 < 5 species	1
A 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 uppen water, the rating is always high. Image: None = 0 points Image: Low = 1 point Moderate = 2 points	2

Total for H 1 Add the points in the boxes above	11
 □ 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 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</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 	11
 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
Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i>	
H 1.5. Special habitat features:	

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 we		
Calculate:	,	
0 % undisturbed habitat + (9 % moderate & low i	intensity land uses / 2) = 4.5%	
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	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
31 % undisturbed habitat + (17 % moderate & low i	intensity land uses / 2) = 39.5%	
		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 = LRecord the rating on the first page

ſ	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	2
	It is a Wetland of High Conservation Value as determined by the	Z
	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 page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- 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	I Туре	Category
	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	
	\Box Yes - Go to SC 1.1 \Box No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary	
00	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or	
	Scientific Reserve designated under WAC 332-30-151?	
	\Box Yes = Category I \Box 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?	
00.00	✓ 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?	
00.00	□ 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	
SC 24	■ 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?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Not WHCV}$	
SC 3.0.		
50 5.0.	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,	
	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3	
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?	
	\Box Yes - Go to SC 3.3 \Box 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?	
	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No - Go to SC 3.4}$	
	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,	
C 2 4	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?	
	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No} = \text{Is not a bog}$	

Wetland name or number WFW-15

<u> </u>		
SC 4.0. I	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? 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.	
	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</i>	
	to be measured near the bottom)	
	$\Box \text{ Yes - Go to SC 5.1} \qquad \Box \text{No} = \text{Not a wetland in a coastal lagoon}$	
SC 5 1 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 / 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 is larger than $\frac{1}{10}$ ac (4350 ft ²)	
	□ Yes = Category I □ No = Category II	
SC 6.0. I	nterdunal 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	
	\Box Yes - Go to SC 6.1 \Box 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?	
	\Box Yes = Category III \Box No = Category IV	
Categor	y of wetland based on Special Characteristics	
-	swered No for all types, enter "Not Applicable" on Summary Form	
	energy in the second seco	





- Stream Ordinary High Water Mark
- = Stream (Piped)
- Stream (Open Channel)

Cowardin Plant Classes

- Palustrine Forested (PFO)
- Palustrine Scrub Shrub (PSS)
- Z Trees or Shrubs with >90% Cover at Person Height

Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

100 Feet

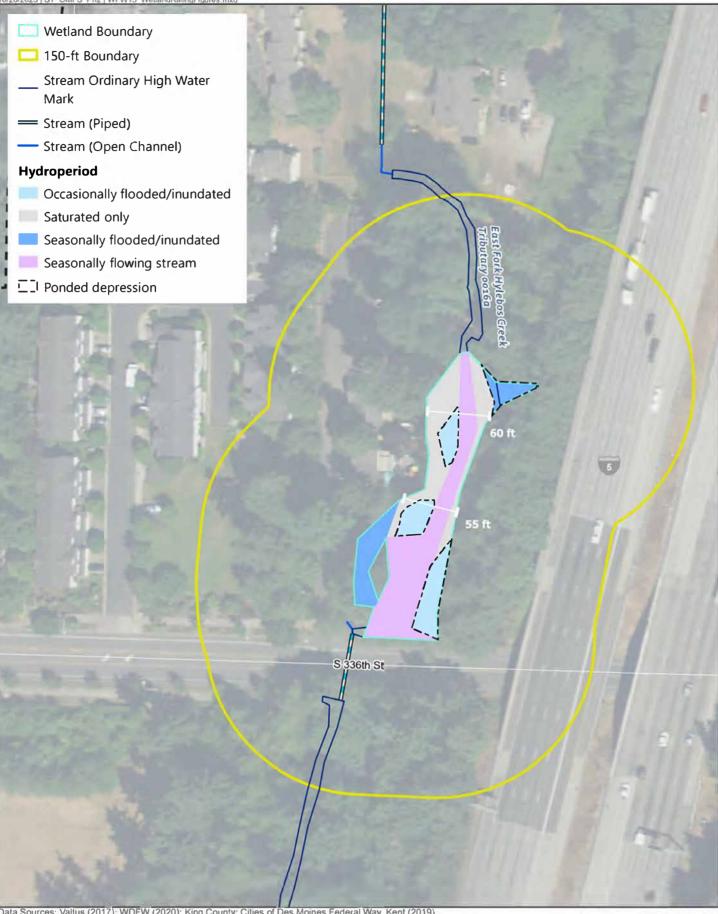
50

S 336th St

SI336th St

Wetland WFW-15 Cowardin Plant Classes and Cover

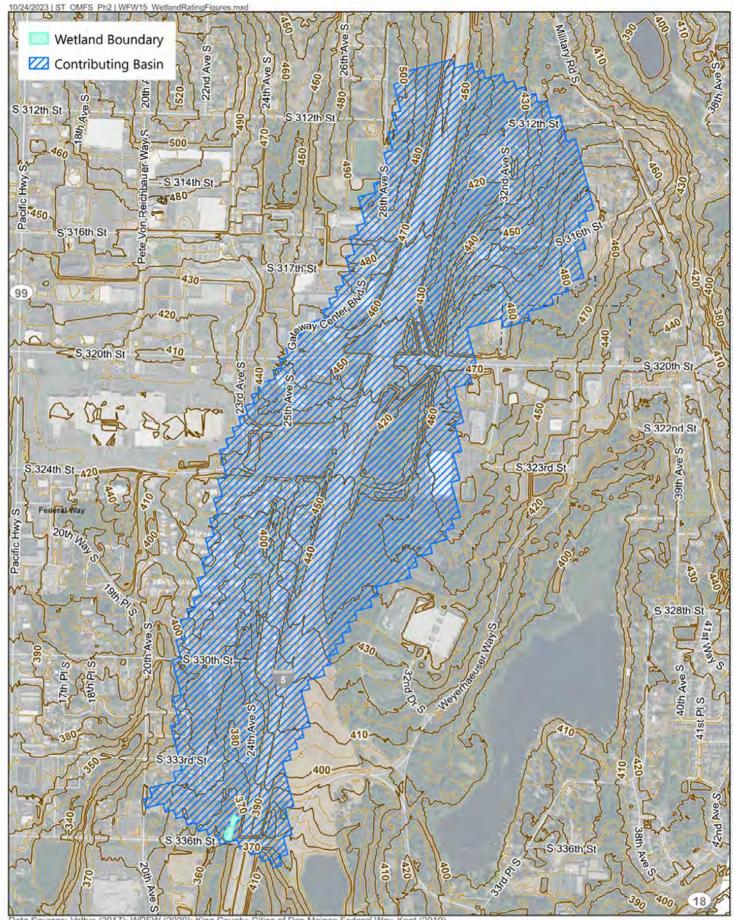
East Fork Hylebos Greek Tributary 00160



100 Feet

50

Wetland WFW-15 Hydroperiods



1,600 Feet

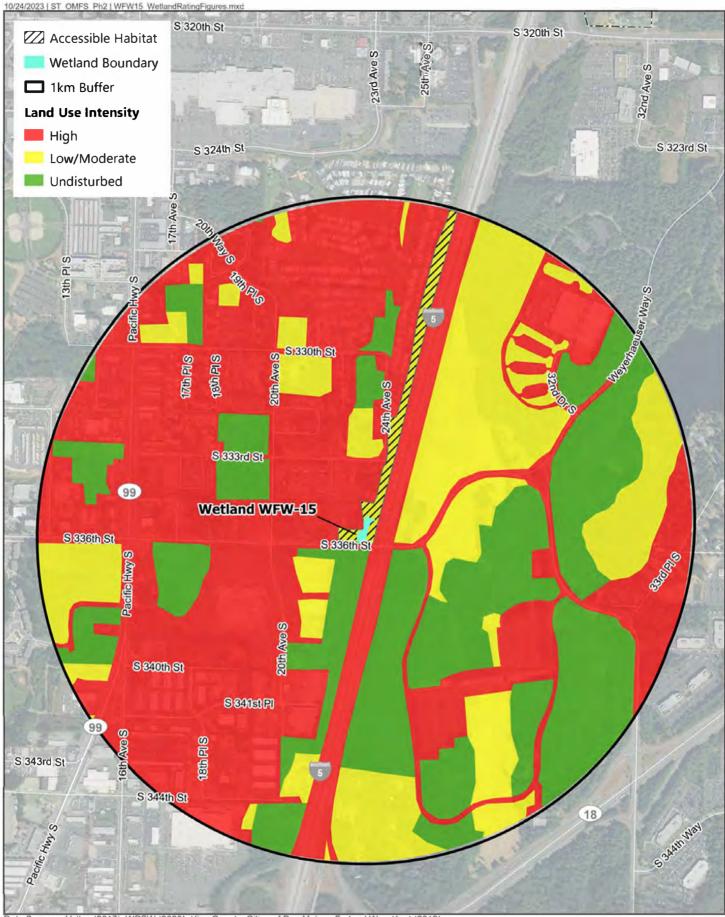
800

1

N

A

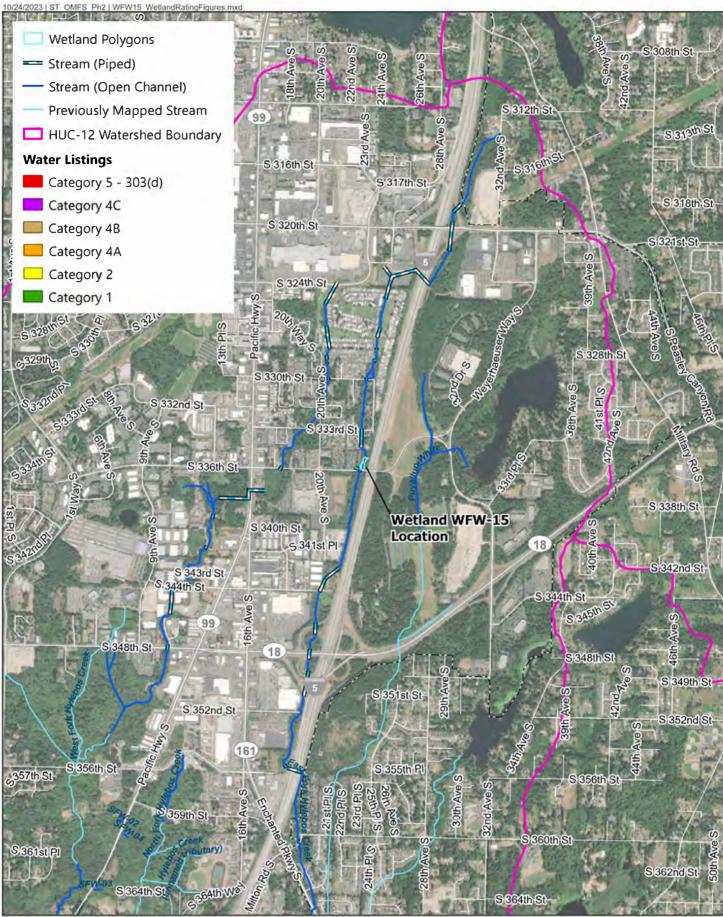
Wetland WFW-15 Contributing Basin



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

N 0 750 1,500 Feet

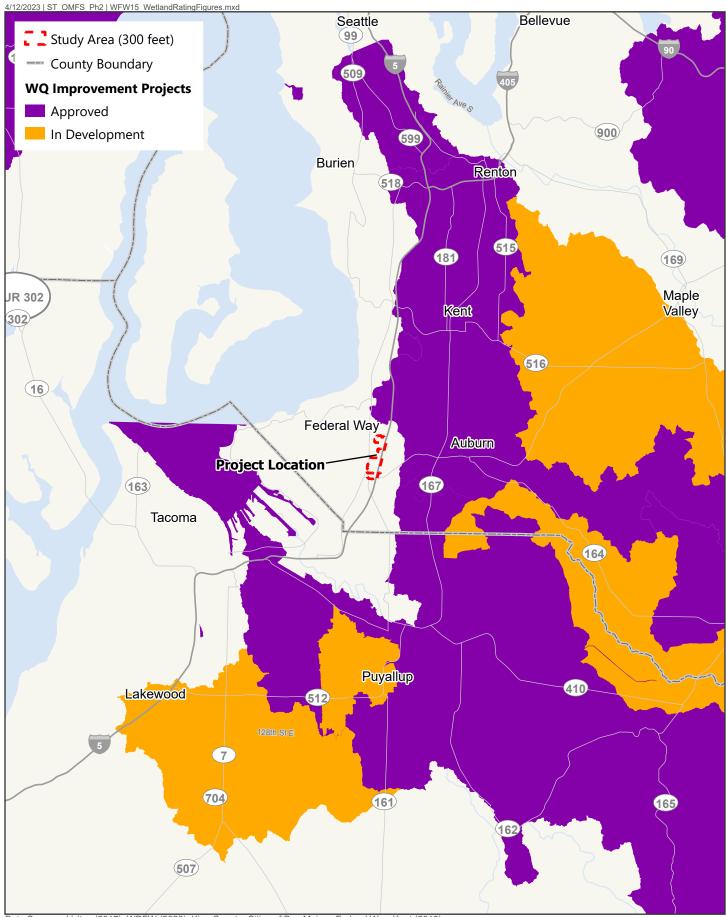
Wetland WFW-15 Land Use Intensity



3,000 Feet

1,500

Wetland WFW-15 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-15 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WFW-16		Date of site visit: 3/2/2020		
Rated by A. Hoenig, K. Moser	Trained by Ecology? ☑ Yes ☐No	Date of training Oct. 2015		
HGM Class used for rating Depressional	Wetland has multipl	e HGM classes?		
NOTE: Form is not complete with out the figures requested (<i>figures can be combined</i>). Source of base aerial photo/map ESRI / Google Earth Pro				
OVERALL WETLAND CATEGORY	III (based on functions ⊡or specia	I characteristics)		
1. Category of wetland based on Fl	JNCTIONS			

	Category I - Total score = 23 - 27
	Category II - Total score = 20 - 22
Х	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List appropriate rating (H, M, L)			
Site Potential	М	М	L	
Landscape Potential	Н	Н	L	
Value	М	Н	L	Total
Score Based on Ratings	7	8	3	18

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

- 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
- □ NO Saltwater Tidal Fringe (Estuarine) □ YES Freshwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

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

- ☑ NO go to 3
 If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.
- 3. Does the entire wetland unit **meet all** of the following criteria?
 - ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ☑ NO go to 4

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

- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (slope can be very gradual),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - □ The water leaves the wetland **without being impounded**.
 - ☑ NO go to 5

□ YES - The wetland class is Slope

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

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

- ☑ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- ☑ The overbank flooding occurs at least once every 2 years.
- □ NO go to 6

✓ YES - The wetland class is Riverine

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

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

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:

Entire wetland sits in a depression. The wetland is rated as depressional.

DEPRESSIONAL AND FLATS WETLA	NDS	
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
\Box Wetland has an unconstricted, or slightly constricted, surface outlet		
that is permanently flowing	points = 1	
\Box 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	ub, and/or	
Forested Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	0
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 i	n manual.	
Area seasonally ponded is $> \frac{1}{2}$ total area of wetland	points $= 4$	2
Area seasonally ponded is $> \frac{1}{4}$ total area of wetland	points $= 2$	
Area seasonally ponded is < 1/4 total area of wetland	points $= 0$	
Total for D 1 Add the points	in the boxes above	7

Rating of Site Potential If score is: \Box 12 - 16 = H \boxdot 6 - 11 = M \Box 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 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 us	ses that		1
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 wetla	and that are		
not listed in questions D 2.1 - D 2.3?			1
Source proximity to I-5 onramp	Yes = 1	No = 0	
Total for D 2	Add the points in the boxe	es above	3

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 value	able to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a lake, or marine water that is on the 303(d) list?	stream, river, Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic re	esource is on the 303(d) list? Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan a maintaining water quality (<i>answer YES if there is a TMDL for the which the unit is found</i>)?	•	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	Record the rating of	n the first page

DEPRESSIONAL AND FLATS WETLAND				
Hydrologic Functions - Indicators that the site functions to reduce flooding a	nd stream degra	adation		
D 4.0. Does the site have the potential to reduce flooding and erosion?				
D 4.1. <u>Characteristics of surface water outflows from the wetland:</u> Wetland is a depression or flat depression with no surface water				
leaving it (no outlet) Wetland has an intermittently flowing stream or ditch, OR highly	points = 4			
constricted permanently flowing outlet Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	points = 2	2		
permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet	points = 1			
that is permanently flowing	points $= 0$			
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above th	e bottom of			
the outlet. For wetlands with no outlet, measure from the surface of permanent wate deepest part.	er or if dry, the			
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	2		
The area of the basin is 10 to 100 times the area of the unit	points = 3	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	$\frac{1}{100}$ points = 5			
Total for D 4 Add the points in the	ne boxes above	8		
	cord the rating on	the first pag		
D 5.0. Does the landscape have the potential to support hydrologic function of the si				
0	es = 1 No = 0	1		
	es = 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		

Total for D 5 Add the points in the boxes above Rating of Landscape Potential If score is: \Box 3 = H \Box 1 or 2 = M \Box 0 = L Record the rating on the first page

Yes = 1 No = 0

3

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	
\Box 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	2
Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$ Record the rating of	

Wetland name or number WFW-16

ADITAT FUNCTIONS Indicators that site functions to previde important habitat	
IABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
1.0. Does the site have the potential to provide habitat?	
1 1.1. Structure of plant community: <i>Indicators are Cowardin classes and strata within the</i> 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 han 2.5 ac. Add the number of structures checked.	
 Aquatic bed Aquatic bed Emergent Scrub-shrub (areas where shrubs have > 30% cover) Scrub-shrub (areas where trees have > 30% cover) Forested (areas where trees have > 30% cover) I 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 	1
I 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 (<i>see text for descriptions of</i> hydroperiods).	
 Permanently flooded or inundated Seasonally flooded or inundated Seasonally flooded or inundated Occasionally flooded or inundated Stypes present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 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 1 1.3. Richness of plant species 2 points Count the number of plant species in the wetland that cover at least 10 ft ² . 2 Different patches of the same species can be combined to meet the size threshold and you do not 2	
nave to name the species. Do not include Eurasian milfoil, reed canarygrass, purple posestrife, Canadian thistle	1
you counted: > 19 species points = 2 5 - 19 species points = 1 < 5 species points = 0	
I 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. <i>If you have four or more plant classes or three classes and open water,</i> <i>the rating is always high.</i>	
	1
None = 0 pointsLow = 1 pointModerate = 2 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 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 (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) □ 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 (<i>see H 1.1 for list of strata</i>) 	0
Total for H 1 Add the points in the boxes above	4

I otal for H 1Add the pointsRating of Site Potential If Score is: \Box 15 - 18 = H \Box 7 - 14 = M \boxdot 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:	
16.8 % undisturbed habitat + (16.5 % moderate & low intensity land uses / 2) = 25.05%	
	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	I
H 2.3 Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2
\leq 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 2 < 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 polic	ies? 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 spec		0
It is a Wetland of High Conservation Value as determined by the second secon	ne	0
Department of Natural Resources		
It has been categorized as an important habitat site in a local o	r	
regional comprehensive plan, in a Shoreline Master Plan, or in	а	
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 ValueIf Score is: $\Box 2 = H$ $\Box 1 = M$ $\boxdot 0 = L$ Ref	ecord the rating on	the first page

WDFW Priority Habitats

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

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

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

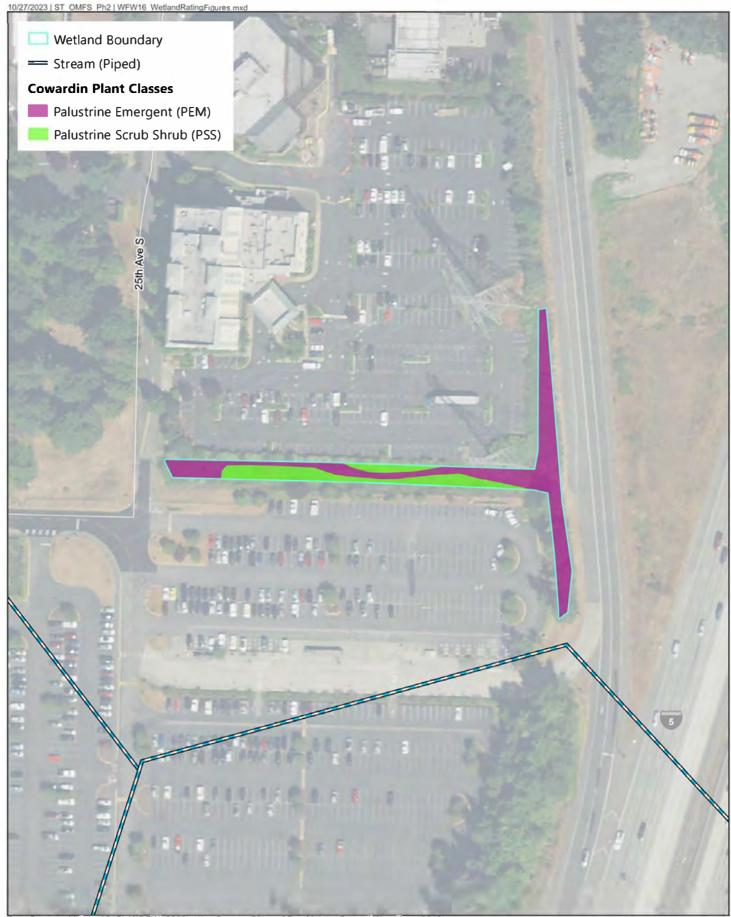
- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **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	
Oberels of			
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.		
50 1.0.1	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		
	\square Yes - Go to SC 1.1 \square No = Not an estuarine wetland		
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary		
50 1.1.	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific		
	Reserve designated under WAC 332-30-151?		
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 1.2}$		
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		
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		
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.			
	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?		
00.00	☐ 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?		
60.2.2	\Box Yes - Go to SC 3.3 \Box No = Is not a bog Does an area with peats or mucks have more than 70% cover of mosses at ground		
SC 3.3.	level, AND at least a 30% cover of plant species listed in Table 4?		
	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No - Go to SC 3.4}$		
	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?		
	\Box Yes = Is a Category I bog \Box 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).					
	Vac. Cotomory I No. Not a formation wattend for this postion					
SC E O Y	Yes = Category I					
30 5.0. 1	•					
	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)					
	$\Box \text{ Yes - Go to SC 5.1} \qquad \forall \text{ No} = \text{Not a wetland in a coastal lagoon}$					
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 $\frac{1}{10}$ ac (4350 ft ²)					
	□ Yes = Category I □ No = Category II					
SC 6.0. I	nterdunal 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?					
	\Box Yes = Category III \Box No = Category IV					
Categor	y of wetland based on Special Characteristics					
If you an	swered No for all types, enter "Not Applicable" on Summary Form					



200 Feet

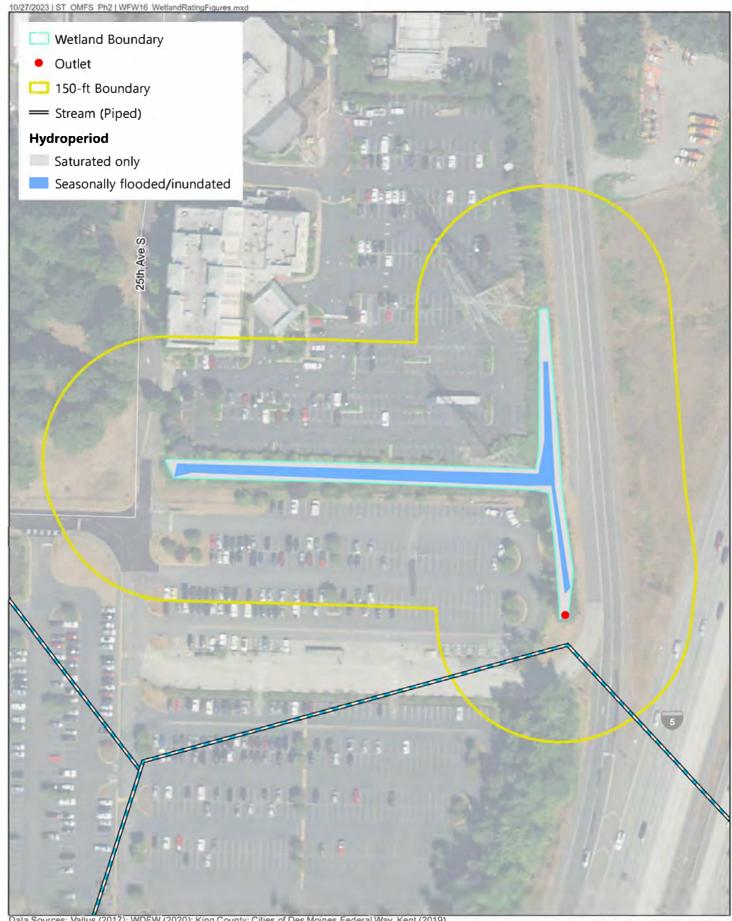
100

1

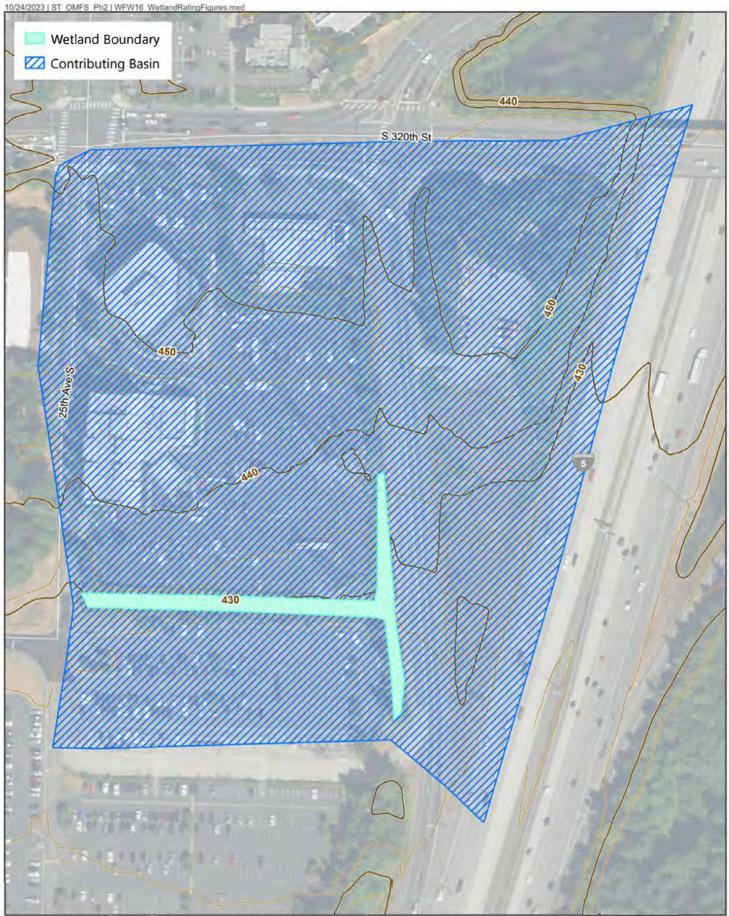
N

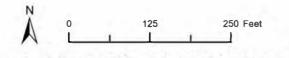
0

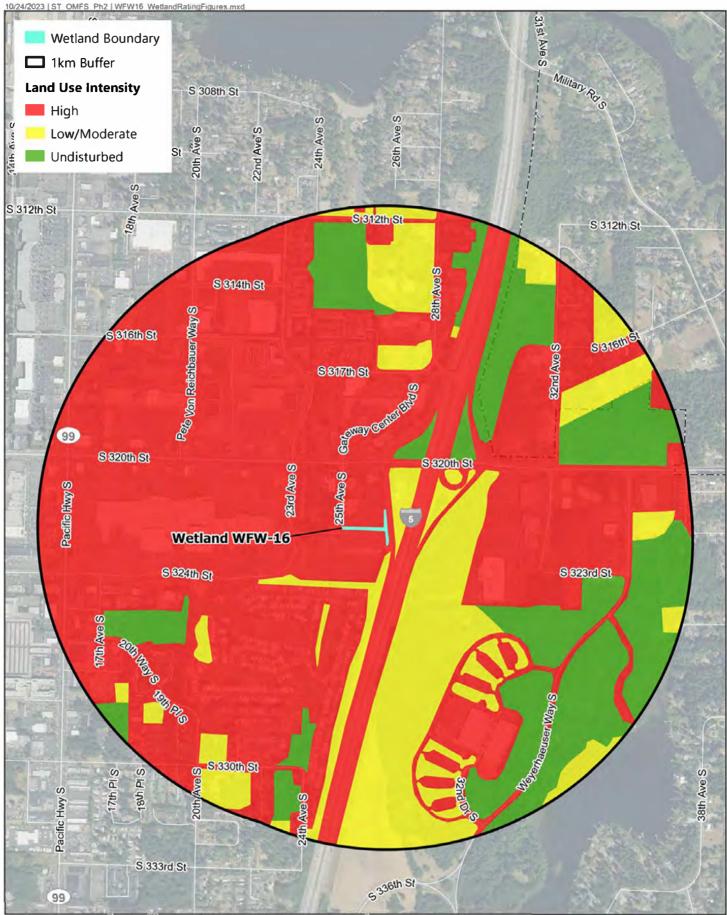
Wetland WFW-16 Cowardin Plant Classes and Cover



N 100 200 Feet 0 1





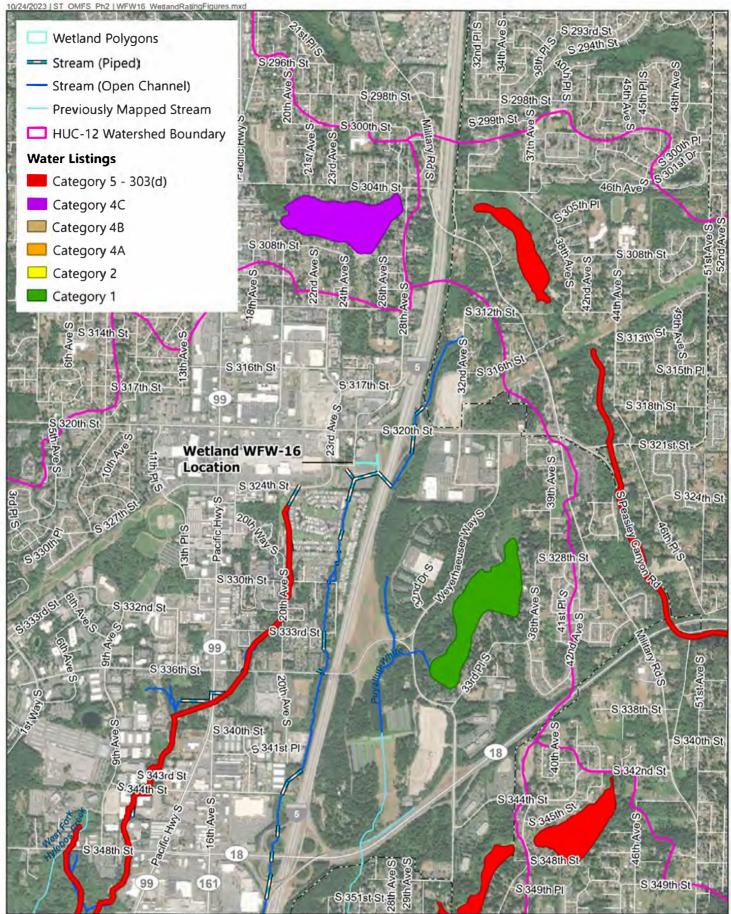


Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

Wetland WFW-16 Land Use Intensity

Ν

A



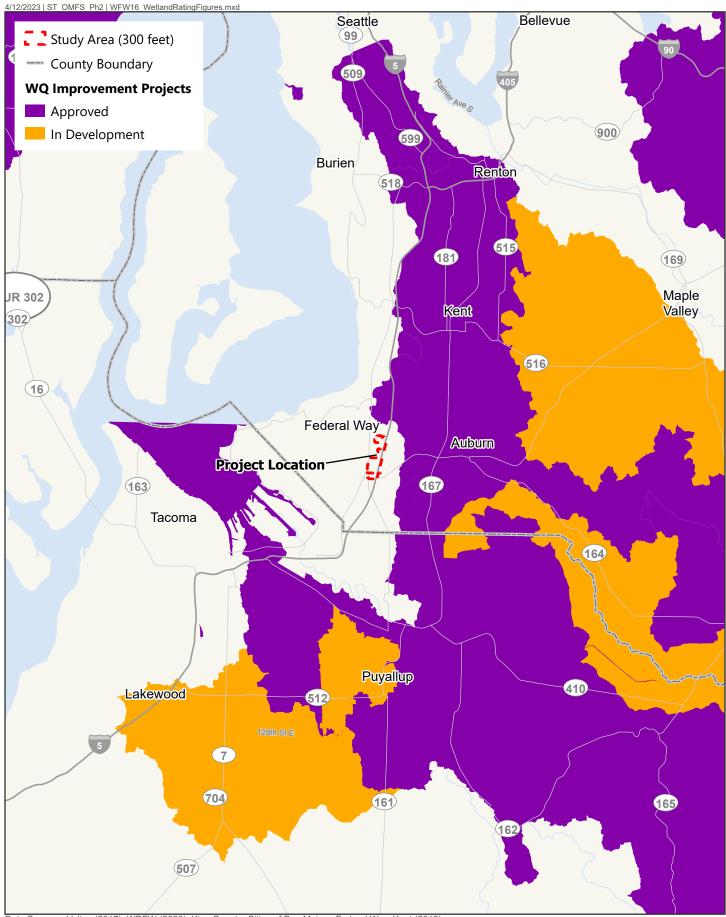
Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

3,000 Feet

1,500

0

Wetland WFW-16 303(d) Listed Waters



5 Miles

Ν

0

2.5

Wetland WFW-16 Total Maximum Daily Loads (TMDL)

Value

Ratings

Score Based on

RATING SUMMARY – Western Washington

Name of wetland (or	ID #):	WFW-17				Date of site visit:	12/19/2019
Rated by T. Story, re	evised b	y A Weiss	Tr	ained by E	cology? ☑ Yes □No	Date of training	Oct-20
HGM Class used for rating Riverine Wetland has multiple HGM classes? Yes I						Yes ⊡No	
NOTE: Form is not complete with out the figures requested (<i>figures can be combined</i>). Source of base aerial photo/map ESRI / Google Earth Pro							
OVERALL WETLA	ND CA	TEGORY	III	(based on	functions or specia	al 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							
Improving Hydrologic Habitat is not							
FUNCTION Water Quality Water Quality							
List appropriate rating (H, M, L)							
Site Potential		М	М	L		9 = H, H, H	
Landscape Potential		Н	M L 8 = H, H, M				

Н

5

Total

18

н

7

L

6

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

- 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
- □ NO Saltwater Tidal Fringe (Estuarine) □ YES Freshwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

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

- ☑ NO go to 3
 If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.
- 3. Does the entire wetland unit **meet all** of the following criteria?
 - □ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ☑ NO go to 4

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

- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (slope can be very gradual),
 - ☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - $\hfill\square$ The water leaves the wetland without being impounded.
 - ☑ NO go to 5

□ YES - The wetland class is Slope

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

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

- ☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- $\hfill\square$ The overbank flooding occurs at least once every 2 years.
- 🗌 NO go to 6

✓ YES - The wetland class is Riverine

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

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

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.

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:

RIVERINE AND FRESHWATER TIDAL FRINGE	WETLANDS	
Water Quality Functions - Indicators that the site functions to impr	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedin flooding event:	nents during a	
Depressions cover $> \frac{3}{4}$ area of wetland	points = 8	2
Depressions cover > 1/2 area of wetland	points = 4	2
Depressions present but cover < 1/2 area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, classes)	not Cowardin	
Trees or shrubs $> {}^{2}/_{3}$ area of the wetland	points = 8	
\Box Trees or shrubs > $\frac{1}{3}$ area of the wetland	points $= 6$	6
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > $\frac{1}{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland	points $= 0$	
Total for R 1 Add the points in	the boxes above	8

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

ter quality function of the site?	
A? Yes = 2 No = 0	2
Vor Yes = 1 No = 0	1
fields, ars? Yes = 1 No = 0	0
ses that Yes = 1 No = 0	0
land that are	0
Yes = 1 No = 0	
Add the points in the boxes above	3
	$\begin{array}{ccc} A? & Yes = 2 & No = 0 \\ A & Or & \\ Yes = 1 & No = 0 \\ fields, \\ urs? & Yes = 1 & No = 0 \\ ses that & \\ & Yes = 1 & No = 0 \\ and that are & \\ \end{array}$

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L Record the rating on the first page

R 3.0. Is the water quality improvement provided by the site valuable to socie	ty?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1	No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients toxics, or pathogens?	s, Yes = 1	No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (<i>answer YES if there is a TMDL for the drainage ir which the unit is found</i>)		No = 0	0
Total for R 3 Add the poir	its in the boxe	es above	0
Rating of Value If score is: $\Box 2 - 4 = H \Box 1 = M \Box 0 = L$	Record the	rating on	the first page

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

RIVERINE AND FRESHWATER TIDAL FRING	SE WETLANDS	
Hydrologic Functions - Indicators that site functions to reduce floo	oding and stream erosio	n
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 of the stream or river channel (distance between banks). Calculate the ratio: (wetland)/(average width of stream between banks).		
If the ratio is more than 20	points = 9	1
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: debris as forest or shrub. Choose the points appropriate for the best description have >90% cover at person height. These are <u>NOT Cowardin</u> classes).		-
Forest or shrub for > $1/_3$ area OR emergent plants > $2/_3$ area	points = 7	7
Forest or shrub for $> 1/_{10}$ area OR emergent plants $> 1/_3$ area	points = 4	
Plants do not meet above criteria	points = 0	
Total for R 4 Add the point	ts in the boxes above	8

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

Peting of Londonome Detential If some in: 2.11. 2.4 on 2.		and Carrier and	the first is a sec
Total for R 5	Add the points in the boxe	s above	2
R 5.3 Is the up-gradient stream or river controlled by dams?	Yes = 0	No = 1	0
R 5.2. Does the up-gradient watershed include a UGA or incor	porated area? Yes = 1	No = 0	1
R 5.1. Is the stream or river adjacent to the wetland downcut?	Yes = 0	No = 1	1
R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?			

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

R 6.0. Are the hydrologic functions provided by the site valuable to societ	y?	
R 6.1. Distance to the nearest areas downstream that have flooding prob	lems?	
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	2
Surface flooding problems are in a sub-basin farther down-grad No flooding problems anywhere downstream	lient points = 1 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	2
Pating of Value If score is: $\sqrt{2} - 4 - 4$	Pocord the rating on	the first near

Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$

Record the rating on the first page

Wetland name or number WFW-17

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) 2 structures: 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 	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 (<i>see text for descriptions of</i> <i>hydroperiods</i>).	
 Permanently flooded or inundated Seasonally flooded or inundated Seasonally flooded or inundated Occasionally flooded or inundated Stypes present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 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	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. <i>If you have four or more plant classes or three classes and open water,</i> <i>the rating is always high.</i>	
	1
None = 0 pointsLow = 1 pointModerate = 2 points	·
All three diagrams in this row are HIGH = 3 points	

 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) 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 (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) □ 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 (<i>see H 1.1 for list of strata</i>) 	Total for H 1 Add the points in the boxes above	5
 ✓ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) ☐ Standing snags (dbh > 4 in) within the wetland 	 at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) □ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) □ 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 (<i>see H 1.1 for list of strata</i>) 	2
	 ✓ 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) 	2

Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 9 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 we	tland unit).	
Calculate:		
2.9 % undisturbed habitat + (1.4 % moderate & low	intensity land uses / 2) = 3.6%	
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	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
21.5 % undisturbed habitat + (18.5 % moderate & low	intensity land uses / 2) = 30.75%	
		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 Ad	d the points in the boxes above	-1

Rating of Landscape Potential If Score is: \Box 4 - 6 = H \Box 1 - 3 = M \Box < 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 poli	icies? 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 spe		2
It is a Wetland of High Conservation Value as determined by t	he	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 ir	na	
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 ValueIf Score is: $\Box 2 = H$ $\Box 1 = M$ $\Box 0 = L$ F	Record the rating on	the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- 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.

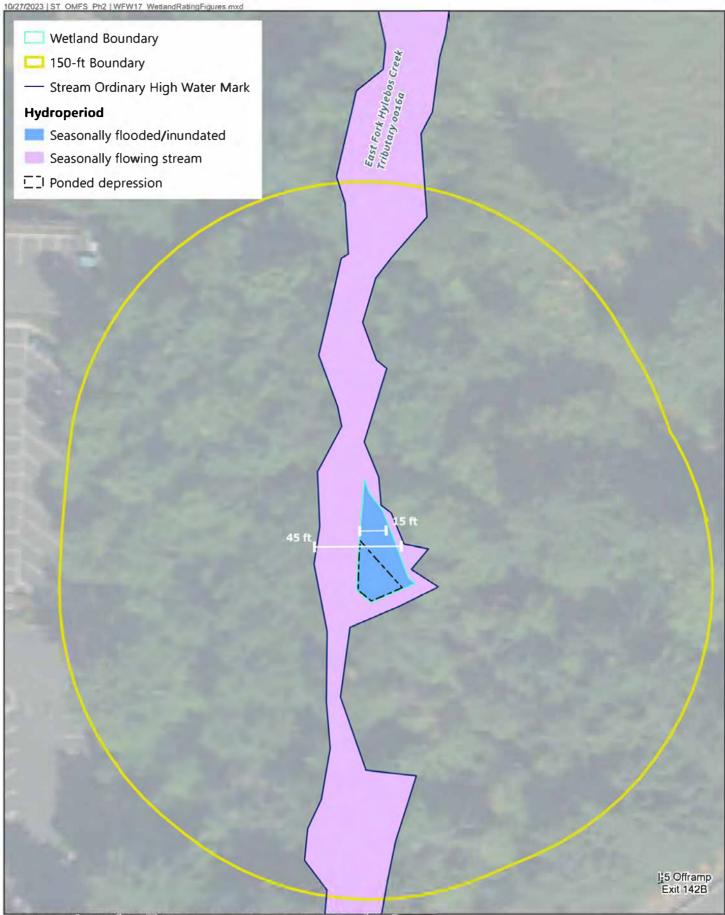
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

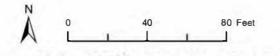
Wetland	Туре	Category
Observe of		
1	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
50 1.0.1	Estuarine Wetlands Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal, Vegetated, and	
	With a salinity greater than 0.5 ppt	
	\square Yes - Go to SC 1.1 \square No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary	
50 1.1.	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific	
	Reserve designated under WAC 332-30-151?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 1.2}$	
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	
SC 2.0.	Wetlands of High Conservation Value (WHCV)	
	Has the WA Department of Natural Resources updated their website to include the list of	
	Wetlands of High Conservation Value?	
	☐ Yes - Go to SC 2.2	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
	□ Yes = Category I	
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?	
	\Box Yes - Go to SC 3.3 \Box 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?	
L	☐ Yes = Is a Category I bog ☐ No = Is not a bog	

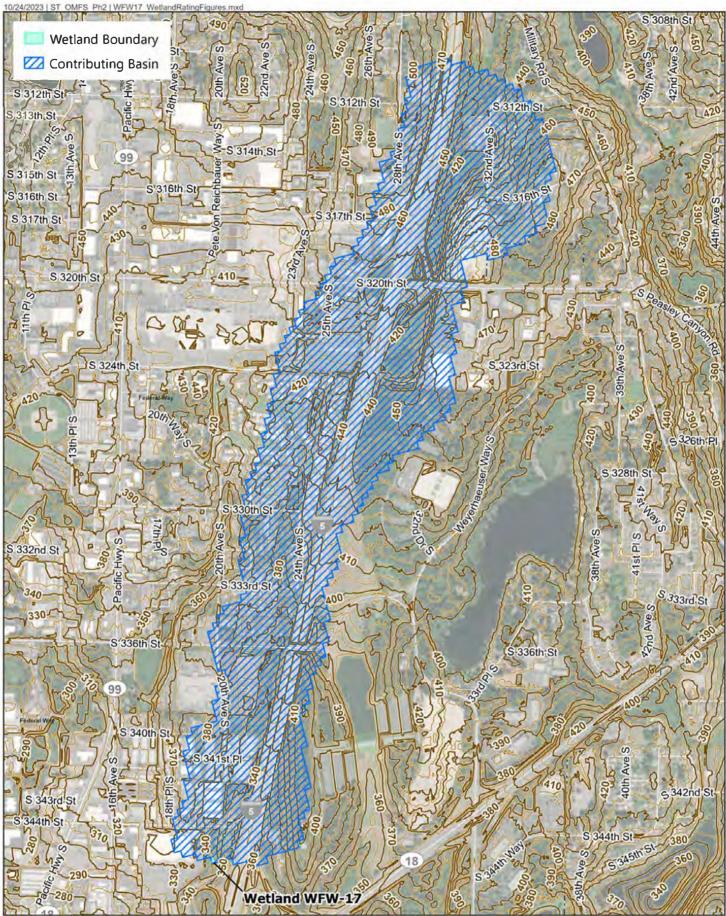
SC 4.0.	Forested Wetlands	
	Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you	
	answer YES you will still need to rate the wetland based on its functions.	
	Old-growth 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)	
	\Box Yes - Go to SC 5.1 \Box 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).	
	grazed or un-mowed grassland.	
	The wetland is larger than $\frac{1}{10}$ ac (4350 ft ²)	
	□ Yes = Category I □ No = Category II	
SC 6.0.	nterdunal 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	
	\Box Yes - Go to SC 6.1 \Box 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	
20011	(rates H,H,H or H,H,M for the three aspects of function)?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 6.2}$	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
00 0.2.	$\Box \text{ Yes} = \textbf{Category II} \Box \text{ No - Go to } \textbf{SC 6.3}$	
SC 6 2	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
SC 6.3.		
0-1	□ Yes = Category III □ No = Category IV	
	y of wetland based on Special Characteristics	
If you an	swered No for all types, enter "Not Applicable" on Summary Form	





Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).



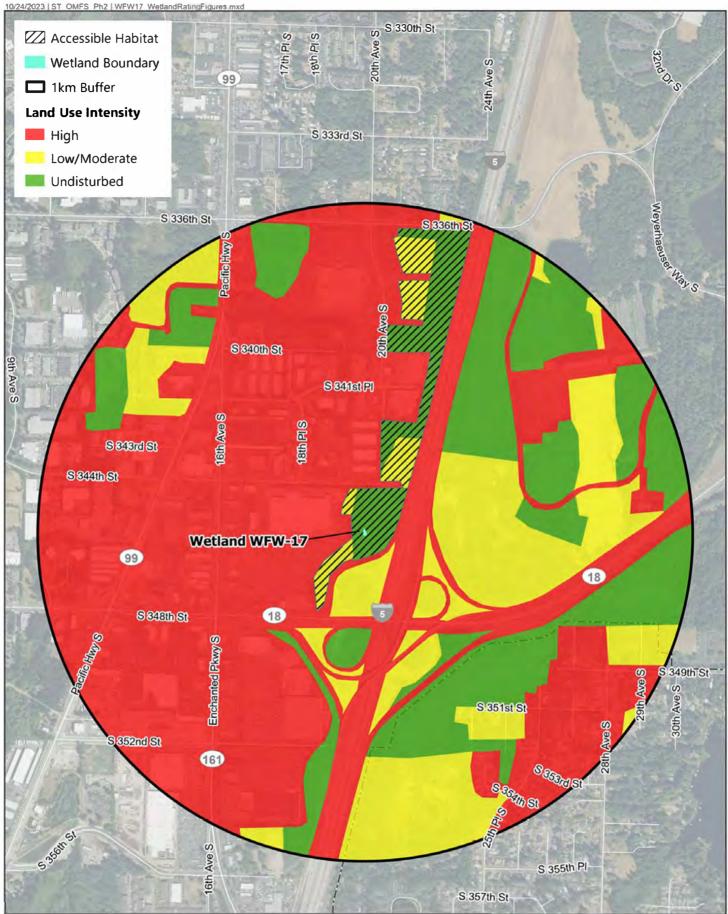


Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

2,000 Feet

1,000

Wetland WFW-17 Contributing Basin



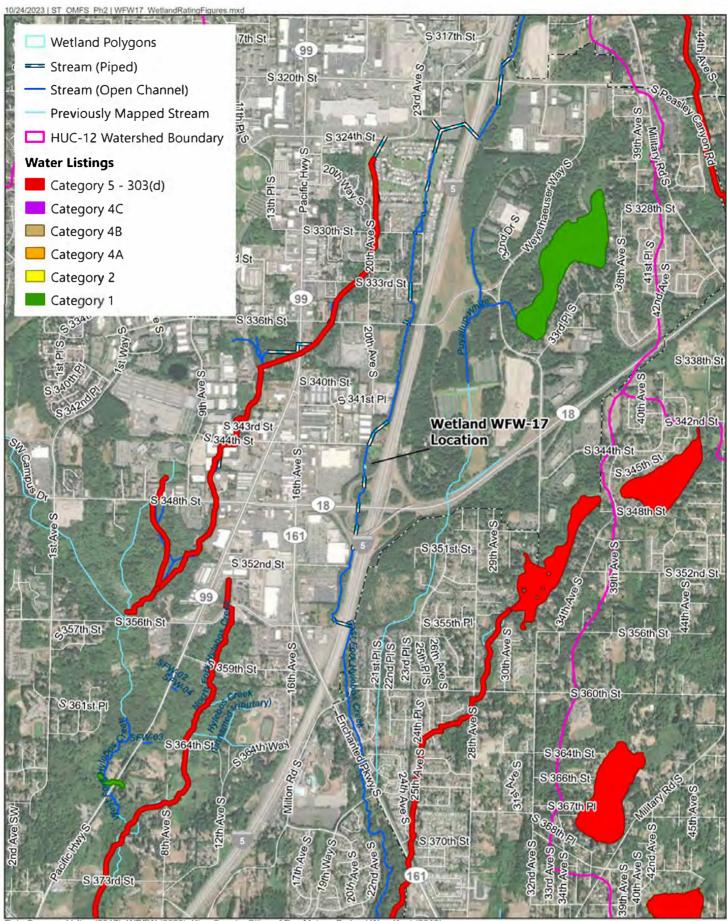
Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

1,500 Feet

750

N

Wetland WFW-17 Land Use Intensity



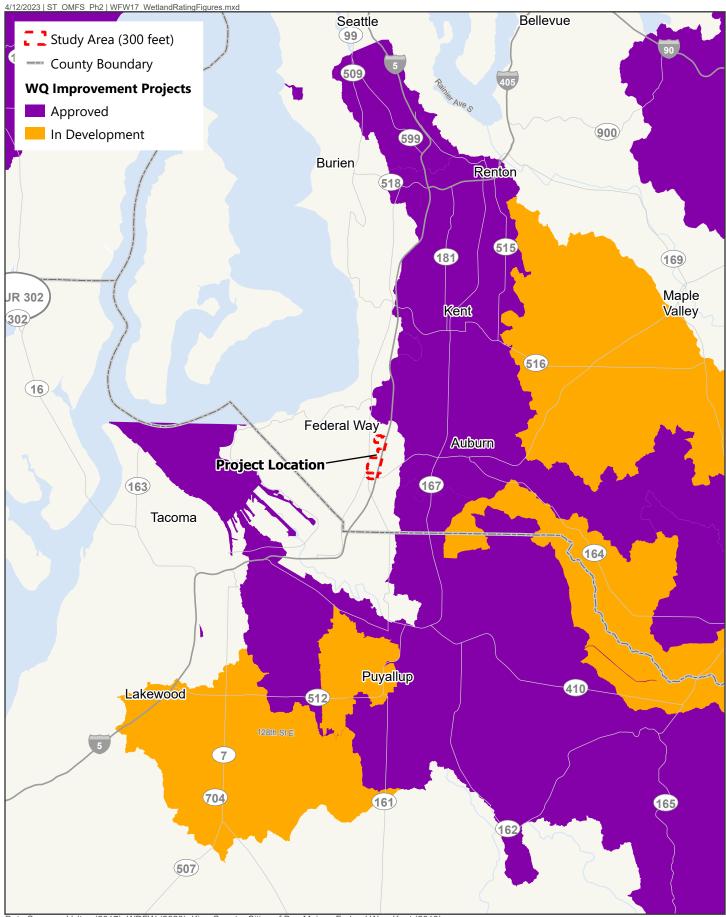
Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

3,000 Feet

1,500

0

Wetland WFW-17 303(d) Listed Waters



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

5 Miles

Ν

0

2.5

Wetland WFW-17 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): WFW-18			Date of site visit:	12/19/2019
Rated by T. Story, re	evised by A Weiss	Trained by E	cology? ☑ Yes □No	Date of training	Oct-20
HGM Class used for	r rating Riverine		Wetland has multipl	e HGM classes? 🗌	Yes ⊡No
	•	te with out the figures re rial photo/map ESRI / Goog		be combined).	
OVERALL WETLA	ND CATEGORY	(based on	functions or specia	I characteristics	
1. Category of w	vetland based or	n FUNCTIONS			
0,1		I - Total score = 23 - 27	Γ	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 Water Quality	Hydrologic Habitat		is not important)	
	List ap	propriate rating (H, M, L)			

FUNCTION	Water Quality	Tiyarologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	М	М	L	
Landscape Potential	Н	Н	L	
Value	L	Н	Н	Total
Score Based on Ratings	6	8	5	19

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

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

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?

 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - □ NO Saltwater Tidal Fringe (Estuarine) □ YES Freshwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

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

- ☑ NO go to 3
 If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.
- 3. Does the entire wetland unit meet all of the following criteria?
 - ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ☑ NO go to 4

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

- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (slope can be very gradual),
 - ☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - $\hfill\square$ The water leaves the wetland without being impounded.
 - ☑ NO go to 5

□ YES - The wetland class is Slope

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

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

- ☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- ☐ The overbank flooding occurs at least once every 2 years.
- □ NO go to 6

✓ YES - The wetland class is Riverine

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

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

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.

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:

RIVERINE AND FRESHWATER TIDAL FRINGE	WETLANDS	
Water Quality Functions - Indicators that the site functions to impre	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedim flooding event:	nents during a	
Depressions cover $> \frac{3}{4}$ area of wetland	points = 8	2
Depressions cover > 1/2 area of wetland	points $= 4$	2
Depressions present but cover < 1/2 area of wetland	points = 2	
No depressions present	points $= 0$	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, classes)	not Cowardin	
Trees or shrubs $> 2/3$ area of the wetland	points = 8	
\Box Trees or shrubs > $^{1}/_{3}$ area of the wetland	points $= 6$	8
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points $= 6$	
Herbaceous plants (> 6 in high) > $\frac{1}{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< 1/3$ area of the wetland	points $= 0$	
Total for R 1 Add the points in	the boxes above	10

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

R 2.0. Does the landscape have the potential to support the wate	r quality function 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 of incorporated area?	or Yes = 1 No =	0 1
R 2.3. Does at least 10% of the contributing basin contain tilled fit pastures, or forests that have been clearcut within the last 5 years		0 0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land use generate pollutants?	es that Yes = 1 No =	0 1
R 2.5. Are there other sources of pollutants coming into the wetla not listed in questions R 2.1 - R 2.4?	nd that are	0
Other Sources	Yes = 1 No =	0
Total for R 2	Add the points in the boxes abov	e 4

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L Record the rating on the first page

R 3.0. Is the water quality improvement provided by the site valuable to societ	y?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1	No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients toxics, or pathogens?		No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important fo maintaining water quality? (<i>answer YES if there is a TMDL for the drainage in which the unit is found</i>)		No = 0	0
Total for R 3 Add the poin	ts in the boxe	es above	0
Rating of Value If score is: 2 - 4 = H 1 = M 0 = L	Record the	rating on	the first page

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

RIVERINE AND FRESHWATER TIDAL FRING	E WETLANDS	
Hydrologic Functions - Indicators that site functions to reduce floo	ding and stream erosio	n
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 of the stream or river channel (distance between banks). Calculate the ratio: (a wetland)/(average width of stream between banks).		
If the ratio is more than 20	points = 9	1
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: debris as forest or shrub. Choose the points appropriate for the best description have >90% cover at person height. These are <u>NOT Cowardin</u> classes).		7
Forest or shrub for $> 1/3$ area OR emergent plants $> 2/3$ area	points = 7	1
Forest or shrub for $> 1/10$ area OR emergent plants $> 1/3$ area	points $= 4$	
Plants do not meet above criteria	points $= 0$	
Total for R 4 Add the point	s in the boxes above	8

Rating of Site Potential If score is: 12 - 16 = H 26 - 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?		
Yes = 0	No = 1	1
Yes = 1	No = 0	1
Yes = 0	No = 1	1
its in the boxe	s above	3
	Yes = 0 Yes = 1 Yes = 0	ons of the site?Yes = 0No = 1Yes = 1No = 0Yes = 0No = 1nts in the boxes above

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

R 6.0. Are the hydrologic functions provided by the site valuable to societ	y?	
R 6.1. Distance to the nearest areas downstream that have flooding prob	lems?	
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	2
Surface flooding problems are in a sub-basin farther down-grad No flooding problems anywhere downstream	lient points = 1 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	2
Pating of Value If score is: $\sqrt{2} - 4 - 4$ $\sqrt{4} - 4$	Pocord the rating on	the first near

Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$

Record the rating on the first page

Wetland name or number WFW-18

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</i> <i>Forested class.</i> 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 □ Aquatic bed □ Emergent □ Scrub-shrub (areas where shrubs have > 30% cover) □ Scrub-shrub (areas where trees have > 30% cover) □ 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 	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 (<i>see text for descriptions of</i> <i>hydroperiods</i>).	
 Permanently flooded or inundated Seasonally 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 	1
 □ 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	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.	
	1
None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are HIGH = 3 points Image: Constant of the second seco	

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) \Box 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 vet 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: \Box 15 - 18 = H \Box 7 - 14 = M \Box 0 - 6 = L Record the rating on the first page

H 2.0. Does the landscape have the potential to support the ha	bitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abut	s wetland unit).	
Calculate:		
2.9 % undisturbed habitat + (1.4 % moderate	& low intensity land uses $/ 2$) = 3.6%	
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	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland	ł.	
Calculate:		
22.6 % undisturbed habitat + (17.9 % moderate	& low intensity land uses $/ 2$) = 31.55%	
		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 2 < 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	s? 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 plane)	ant	
or animal on the state or federal lists)		
It is mapped as a location for an individual WDFW priority species	S	2
It is a Wetland of High Conservation Value as determined by the		Z
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	ord the rating on t	the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- 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

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?	
\Box The dominant water regime is tidal,	
 The dominant water regime is tidal, Vegetated, and 	
□ Vegetated, and □ With a salinity greater than 0.5 ppt	
$\Box \text{Yes - Go to SC 1.1} \Box \text{No} = \text{Not an estuarine wetland}$	
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?	
$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 1.2}$	
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	
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	
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?	
$\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No} = \text{Is not a bog}$	
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,	
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?	
$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No} = \text{Is not a bog}$	

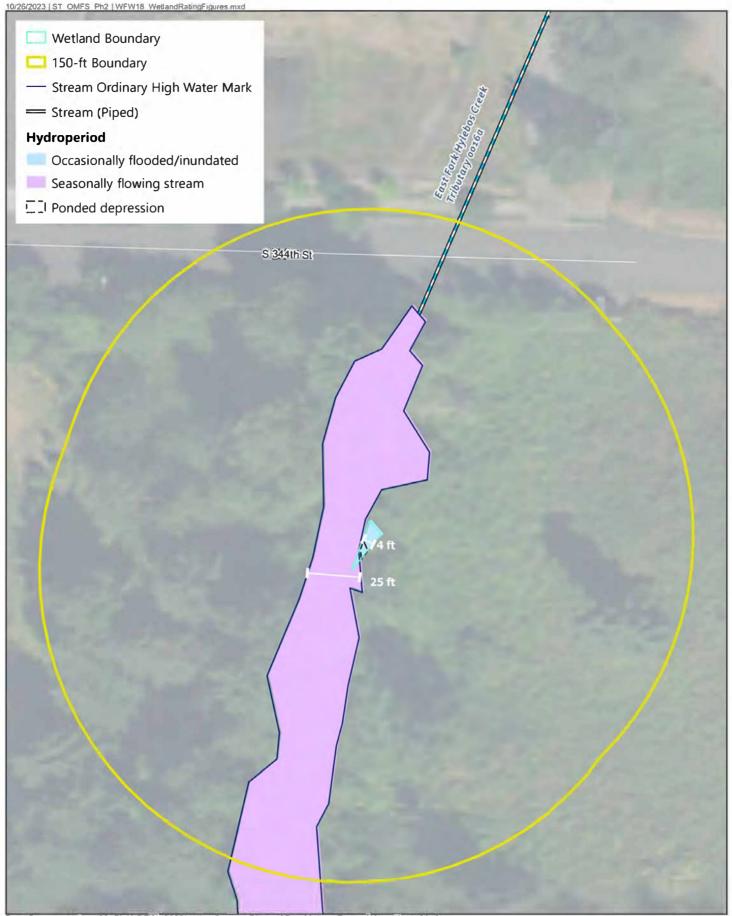
SC 4.0.	Forested Wetlands	
	Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you	
	answer YES you will still need to rate the wetland based on its functions.	
	Old-growth 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 Ves = Category I Vo = 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)	
	$\Box \text{ Yes - Go to SC 5.1} \qquad \forall \text{ No} = \text{Not a wetland in a coastal lagoon}$	
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).	
	5	
	grazed or un-mowed grassland.	
	The wetland is larger than $\frac{1}{10}$ 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:	
	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	
	\Box Yes - Go to SC 6.1 \Box 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.	(rates H,H,H or H,H,M for the three aspects of function)?	
	$\Box \text{ Yes} = \textbf{Category I} \qquad \Box \text{ No - Go to } \textbf{SC 6.2}$	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
00 0.2.	$\Box \text{ Yes} = \textbf{Category II} \qquad \Box \text{ No - Go to } \textbf{SC 6.3}$	
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	
0.0.0.	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	
	encies ne la groo, ence not applease on ournary ronn	



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

60 Feet

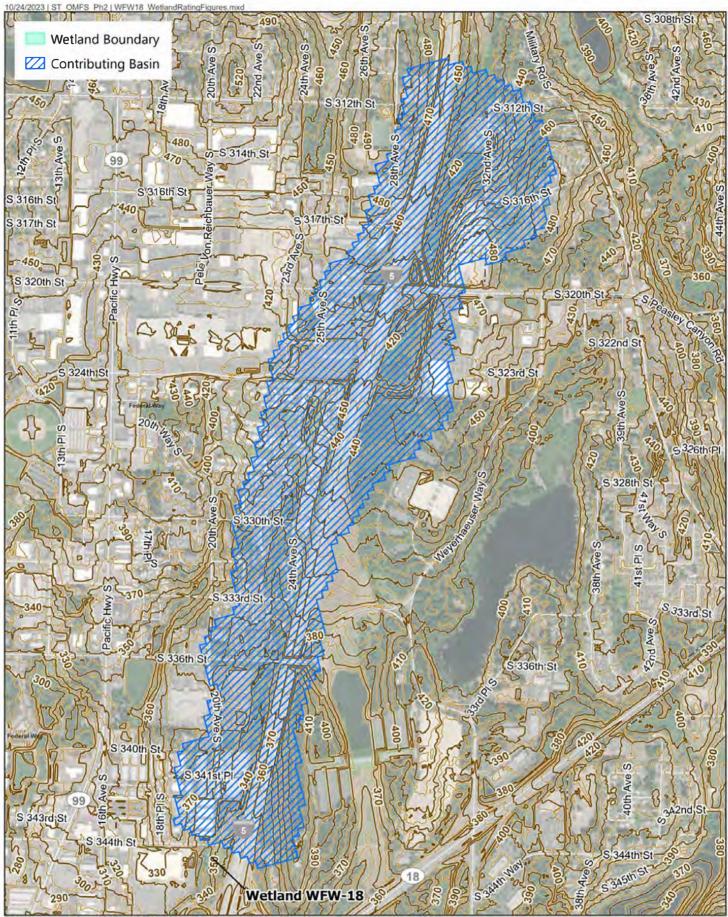
Wetland WFW-18 Cowardin Plant Classes and Cover



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

60 Feet

Wetland WFW-18 Hydroperiods



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

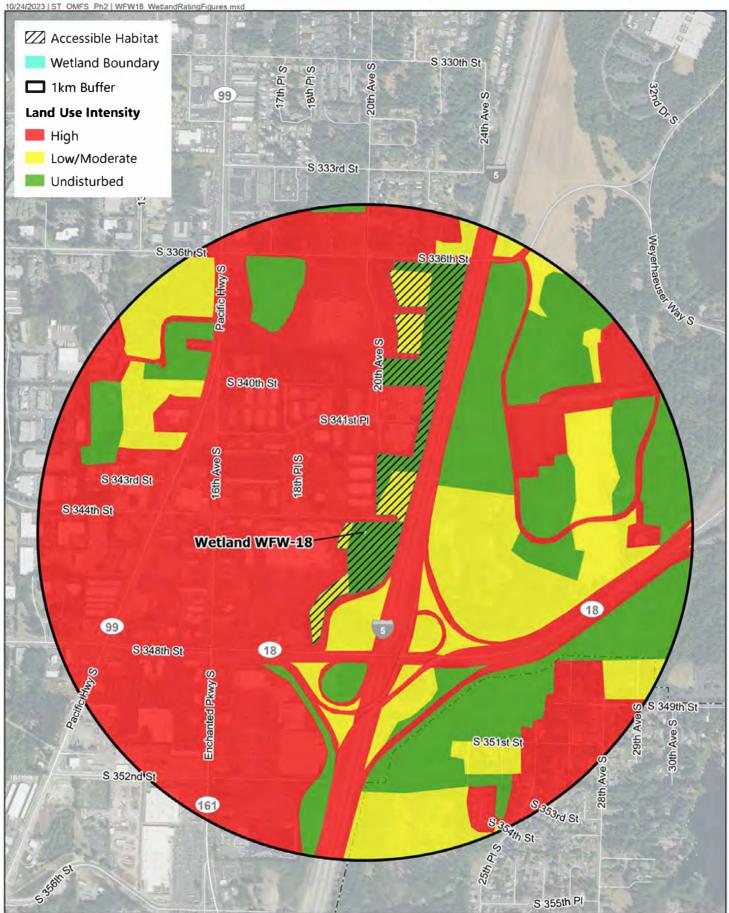
2,000 Feet

1,000

N

A

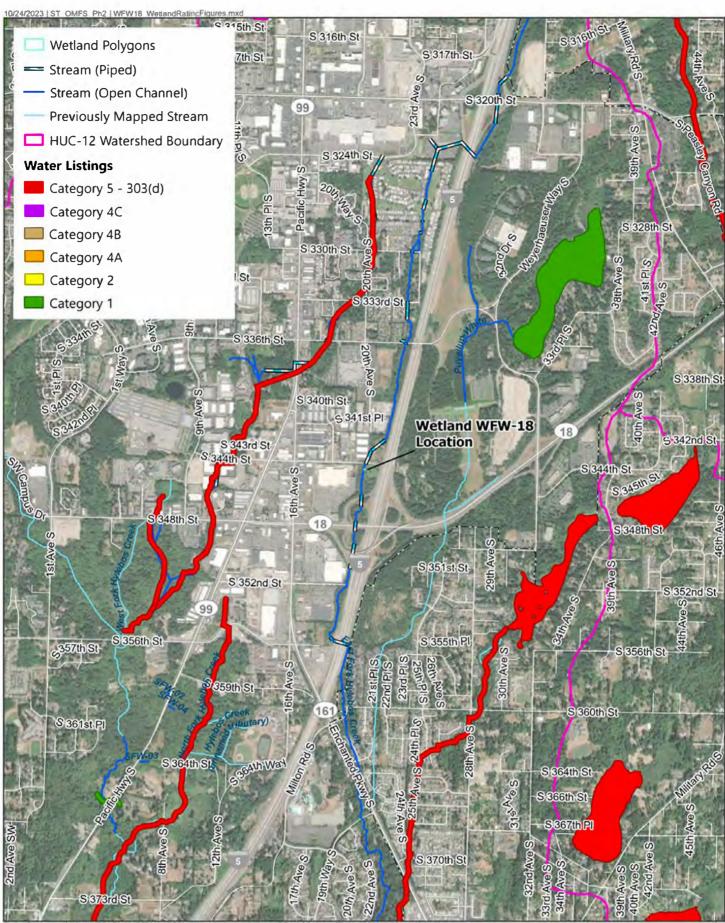
Wetland WFW-18 Contributing Basin



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

N 0 750 1,500 Feet

Wetland WFW-18 Land Use Intensity



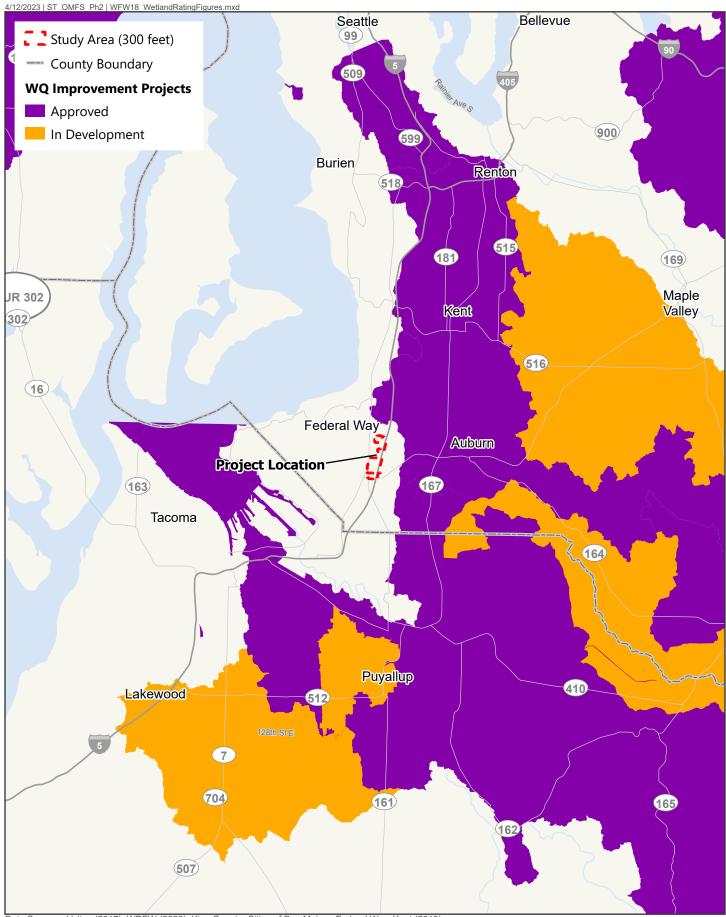
Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019),

3,000 Feet

1,500

0

Wetland WFW-18 303(d) Listed Waters



Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

5 Miles

Ν

0

2.5

Wetland WFW-18 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or I	D #): WFW-19					Date of site visit:	2/20/2020
Rated by J. Wozniak	(_ Tr	ained by E	cology? 🛛	Yes 🗌 No	Date of training	Jul-05
HGM Class used for	rating Depression	nal		Wetlar	nd has multip	le HGM classes? \Box `	Yes 🗹 No
	rm is not complete Source of base aer			quested	(figures can	be combined).	
				functions	⊡or specia	I characteristics □)	
1. Category of w		FUNCTION: [- Total score			Г	Score for each	
-		II - Total score				function based	
-	X Category			1		on three	
-		IV - Total scor				ratings	
-	0,					(order of ratings	
FUNCTION	Improving	Hydrologic	Habitat			is not	
FUNCTION	Water Quality					important)	
•	List app	propriate rating	g (H, M, L)				
Site Potential	М	M	L			9 = H, H, H	
Landscape Potential	Н	Н	L			8 = H, H, M	
Value	М	Н	L	Total		7 = H, H, L	
Score Based on	7	8	3	18	7	7 = H, M, M	
Ratings	1	0	5	10		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 base	ed on SPECIAL C	HARACTER	RISTICS o	f wetland	d		

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

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?

 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - □ NO Saltwater Tidal Fringe (Estuarine)
 □ YES Freshwater Tidal Fringe
 If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands. If
 it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be
 used to score functions for estuarine wetlands.

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

- 3. Does the entire wetland unit meet all of the following criteria?
 - The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ✓ NO go to 4☐ YES The wetland class is Lake Fringe (Lacustrine Fringe)
- 4. Does the entire wetland unit **meet all** of the following criteria?
 - ☐ The wetland is on a slope (*slope can be very gradual*),
 - \square The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It
 - may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - \Box The water leaves the wetland **without being impounded**.
 - 🗹 NO go to 5

□ YES - The wetland class is Slope

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

- 5. Does the entire wetland unit meet all of the following criteria?
 - The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - ☑ The overbank flooding occurs at least once every 2 years.
 - \square NO go to 6

☑ YES - The wetland class is Riverine

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

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

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:

	<u>ANDS</u>		
Water Quality Functions - Indicators that the site functions to in	nprove 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	
\square Wetland has an unconstricted, or slightly constricted, surface outlet			
that is permanently flowing	points = 1		
\Box Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	1		
permanently flowing ditch.	points = 1		
D 1.2. <u>The soil 2 in below the surface (or duff layer)</u> 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-sh	rub, and/or Forested		
Cowardin classes):			
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	F	
Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area	points = 3	5	
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 in manual.			
Area seasonally ponded is > $\frac{1}{2}$ total area of wetland	points = 4	0	
Area seasonally ponded is > $\frac{1}{4}$ total area of wetland	points = 2		
Area seasonally ponded is $< \frac{1}{4}$ total area of wetland	points = 0		
	s in the boxes above	7	

Rating of Site Potential If score is:
$$\Box$$
 12 - 16 = H \Box 6 - 11 = M \Box 0 - 5 = L Re

Record the rating on the first page

D 2.0. Does the landscape have the potential to support the water quality function of the site?				
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1	No = 0	1	
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that			1	
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	9			
not listed in questions D 2.1 - D 2.3?			1	
Source <u>I-5 appx. 70 feet upslope</u>	Yes = 1	No = 0		
Total for D 2 Add the pe	oints in the boxe	es above	3	
Deting of Londocone Detential if access in: $[2, 2, 2, 4, -1]$ $[4, 2, -1]$ $[0, -1]$ $[2, 2, 2, -1]$				

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 societ	y?		
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 303(d) list	?	1
	Yes = 1	No = 0	I
D 3.3. Has the site been identified in a watershed or local plan as important for	r		
maintaining water quality (answer YES if there is a TMDL for the basin in			0
which the unit is found)?	Yes = 2	No = 0	
Total for D 3 Add the poir	its in the boxe	es above	1
Rating of Value If score is: 2 - 4 = H I 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 degradat			
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 =			
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the	le		
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the			
deepest part.	- 7		
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 of ponding between 2 ft to < 3 ft from surface or bottom of outlet points =			
\square 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 =			
D 4.3. <u>Contribution of the wetland to storage in the watershed</u> : <i>Estimate the ratio of the area of</i>	0		
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.			
\Box 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 =			
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: $\Box 12 - 16 = H$ $\Box 6 - 11 = M$ $\Box 0 - 5 = L$ Record the rating			
	on the mst 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?	0 1		
Yes = 1 No = D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human la	-		
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1		
Yes = 1 No =			
Total for D 5 Add the points in the boxes abo			
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. <u>The unit is in a landscape that has flooding problems</u> . 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 2		
 Surface flooding problems are in a sub-basin farther down- 			
gradient. points =			
☐ Flooding from groundwater is an issue in the sub-basin. points =	-		
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 = 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			
	on the first page		

These questions apply to wetlands of all HGM classes.	
IABITAT 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</i> 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 han 2.5 ac. Add the number of structures checked.	
 ☐ Aquatic bed 4 structures or more: points = 4 ✓ Emergent ✓ Scrub-shrub (areas where shrubs have > 30% cover) ✓ Structures: points = 2 ✓ Scrub-shrub (areas where trees have > 30% cover) ✓ Forested (areas where trees have > 30% cover) ✓ I structure: points = 0 <i>If the unit has a Forested class, check if</i>: ✓ 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 ✓ 1.2. Hydroperiods 	1
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has o cover more than 10% of the wetland or 1⁄4 ac to count (<i>see text for descriptions of hydroperiods</i>).	
 Permanently flooded or inundated Seasonally 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 	0
Lake Fringe wetland Z points Freshwater tidal wetland 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 nave to name the species. Do not include Eurasian milfoil, reed canarygrass, purple Coosestrife, Canadian thistle	1
f 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 n H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, noderate, low, or none. <i>If you have four or more plant classes or three classes and open water,</i> <i>he rating is always high.</i>	
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. The number of checks is the number of points. Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) \Box 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 4

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

H 2.0. Does the landscape have the potential to support the habita	at function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts w	etland unit).	
Calculate:		
8 % undisturbed habitat + (6 % moderate & lo	w intensity land uses / 2) = 11%	
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:		
10 % undisturbed habitat + (5 % moderate & lo	w intensity land uses / 2) = 12.5%	
		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	0

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 pol	icies? 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 (an	y plant	
or animal on the state or federal lists)		
☐ It is mapped as a location for an individual WDFW priority spe	ecies	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 i	na	
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 page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **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 of	any criteria that apply to the wetland. List the category when the appropriate criteria are met.		
	Estuarine Wetlands		
30 1.0.1	Does the wetlands 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		
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		
	Netlands of High Conservation Value (WHCV)		
SC 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?		
	☐ 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		
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?		
	\Box Yes - Go to SC 3.3 \Box 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,		
000.0.0	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		
	$\square \square $	1	

Wetland name or number WFW-19

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.	
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)	
$\Box \text{ Yes - Go to SC 5.1} \qquad \forall \text{ No = Not a wetland in a coastal lagoon}$	
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 / ₄ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
grazed or un-mowed grassland.	
\Box The wetland is larger than $\frac{1}{10}$ 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	
Cocean 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)?	
$\Box \text{ Yes} = \textbf{Category I} \qquad \Box \text{ No - Go to SC 6.2}$	
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
$\Box \text{ Yes} = \text{Category II} \Box \text{ No - Go to SC 6.3}$	
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	

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): WFW-20					Date of site visit:	2/21/2020
Rated by J Wozniak		. Tr	ained by E	cology? 🗹	Yes 🗌 No	Date of training	2015
HGM Class used for	r rating Riverine			Wetland	l has multip	le HGM classes? \Box	Yes 🗹 No
NOTE: Form is not complete with out the figures requested (<i>figures can be combined</i>). Source of base aerial photo/map ESRI							
OVERALL WETLA	ND CATEGORY		(based on	functions	✓ or speci	al characteristics 🗌)
1. Category of v	vetland based on				ſ		
		I - Total score				Score for each	
		II - Total score				function based	
		III - Total scor)		on three	
	Category	IV - Total scor	re = 9 - 15			ratings	
						(order of ratings	
FUNCTION	Improving	Hydrologic	Habitat			is not	
	Water Quality					important)	
		ropriate rating	g (H, M, L)				
Site Potential	М	М	M			9 = H, H, H	
Landscape Potential	Н	Н	L			8 = H, H, M	
Value	L	Н	М	Total		7 = H, H, L	
Score Based on	6	8	5	19		7 = H, M, M	
Ratings	•	Ũ	Ŭ			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	X

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?
 - ☑ NO go to 2
 ☑ YES the wetland class is Tidal Fringe go to 1.1
 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - □ NO Saltwater Tidal Fringe (Estuarine)
 □ YES Freshwater Tidal Fringe
 If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands.
 If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be used to score functions for estuarine wetlands.

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

- ✓ NO go to 3
 ✓ YES The wetland class is Flats
 If your wetland can be classified as a Flats wetland, use the form for Depressional wetlands.
- 3. Does the entire wetland unit **meet all** of the following criteria?
 - The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - Image: NO go to 4Image: YES The wetland class is Lake Fringe (Lacustrine Fringe)
- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (*slope can be very gradual*),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It
 - may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - \Box The water leaves the wetland **without being impounded**.
 - 🗹 NO go to 5

YES - The wetland class is **Slope**

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

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

- ☑ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.
- 🗌 NO go to 6

✓ YES - The wetland class is **Riverine**

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

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

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

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

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

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

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

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

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

NOTES and FIELD OBSERVATIONS:

RIVERINE AND FRESHWATER TIDAL FRINGE	NETLANDS	
Water Quality Functions - Indicators that the site functions to impro	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedim flooding event:	ents during a	
Depressions cover $> {}^{3}/_{4}$ area of wetland	points = 8	2
Depressions cover > $\frac{1}{2}$ area of wetland	points = 4	Z
Depressions present but cover < $\frac{1}{2}$ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, classes)	not Cowardin	
Trees or shrubs > $^{2}/_{3}$ area of the wetland	points = 8	
\Box Trees or shrubs > 1 / ₃ area of the wetland	points = 6	8
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > $^{1}/_{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< 1/3$ area of the wetland	points = 0	
Total for R 1 Add the points in t	the boxes above	10

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

R 2.0. Does the landscape have the potential to support the water	r quality function of the si	te?	
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 c incorporated area?	or Yes = 1	No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled field pastures, or forests that have been clearcut within the last 5 years		No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land use generate pollutants?	es that Yes = 1	No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetlan not listed in questions R 2.1 - R 2.4?	nd that are		1
Other Sources <u>I-5</u>	Yes = 1	No = 0	
Total for R 2 A	dd the points in the boxe	es above	5
		-	

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L Record the rating on the first page

ole to society?	
ist or on a Yes = 1 No = 0	0
for nutrients, Yes = 1 No = 0	0
important for drainage in Yes = 2 No = 0	0
	ist or on a Yes = 1 No = 0 for nutrients, Yes = 1 No = 0 important for

Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$

Record the rating on the first page

RIVERINE AND FRESHWATER TIDAL FRINGE V	VETLANDS	
Hydrologic Functions - Indicators that site functions to reduce flooding	and stream erosic	on
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 of the stream or river channel (distance between banks). Calculate the ratio: (avera 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</i> <u>NOT Cowardin</u> classes).		7
Forest or shrub for > $^{1}/_{3}$ area OR emergent plants > $^{2}/_{3}$ area	points = 7	7
Forest or shrub for $> 1/10$ area OR emergent plants $> 1/3$ area	points = 4	
Plants do not meet above criteria	points = 0	
Fotal for R 4 Add the points in t	he 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

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 incorpo	rated area? Yes = 1	No = 0	1
R 5.3 Is the up-gradient stream or river controlled by dams?	Yes = 0	No = 1	1
Total for R 5	Add the points in the boxe	s above	3

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

R 6.0. Are the hydrologic functions provided by the site valuable to society?		
R 6.1. Distance to the nearest areas downstream that have flooding problems?)	
Choose the description that best fits the site.		
The sub-basin immediately 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	2
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		0
conveyance in a regional flood control plan?	Yes = 2 No = 0	
Total for R 6 Add the points	in the boxes above	2
$Pating of Value factors is: \sqrt{2} 4 = H \sqrt{4 - M} \sqrt{4 - I}$	Pocord the rating on th	a first no

Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$

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: <i>Indicators are Cowardin classes and strata within the</i> <i>Forested class.</i> 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 Aquatic bed Emergent Scrub-shrub (areas where shrubs have > 30% cover) Scrub-shrub (areas where trees have > 30% cover) Forested (areas where trees have > 30% cover) Istructure: 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 	2
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 Seasonally flooded or inundated Occasionally flooded or inundated 2 types present: points = 1 Saturated only Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland 	2
□ 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	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. <i>If you have four or more plant classes or three classes and open</i> <i>water, the rating is always high.</i>	
	2
None = 0 pointsLow = 1 pointModerate = 2 points	_
All three diagrams in this row are HIGH = 3 points	

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

 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 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 (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) □ 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 (<i>see H 1.1 for list of strata</i>) 	3
Total for H 1 Add the points 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 habita	t function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts we	etland unit).	
Calculate:		
1 % undisturbed habitat + (5 % moderate & low	v intensity land uses / 2) = 3.5%	
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	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
10 % undisturbed habitat + (35 % moderate & low	v intensity land uses / 2) = 27.5%	
		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 Ac	d 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	
\Box It has 3 or more priority habitats within 100 m (see next page)		
It provides habitat for Threatened or Endangered species (any plant	t	
or animal on the state or federal lists)		
\Box It is mapped as a location for an individual WDFW priority species		4
\Box It is a Wetland of High Conservation Value as determined by the		I
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 ValueIf Score is: \Box 2 = H \Box 1 = M \Box 0 = LRecord	the rating on	the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **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
Ohardard		
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
50 1.0.1	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	
	\square Yes - Go to SC 1.1 \square No = Not an estuarine wetland	
SC 1.1.		
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)	
	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 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	
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?	
60.2.2	\Box Yes - Go to SC 3.3 \Box No - Go to SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are	
SC 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?	
	$\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No = Is not a bog}$	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground	
00 0.0.	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. F	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 Ves = Category I	
SC 5.0. \	Netlands 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 Ves - 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).	
	grazed or un-mowed grassland.	
	The wetland is larger than $1/_{10}$ ac (4350 ft ²)	
	□ Yes = Category I □ No = Category I	
SC 6.0. I	nterdunal 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	
	•	
0004	Solution Section Section \square 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.	•	
	(rates H,H,H or H,H,M for the three aspects of function)?	
	$\Box \text{ Yes} = \textbf{Category I} \qquad \Box \text{ No - Go to } \textbf{SC 6.2}$	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
	\Box Yes = Category II \Box 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	
Categor	y of wetland based on Special Characteristics	
	swered No for all types, enter "Not Applicable" on Summary Form	
n you an		

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WFW-21		Date of site visit:	2/21/2020
Rated by Josh Wozniak & Matt Murphy	Trained by Ecology? ⊡Yes □No	Date of training	2014, 2019
HGM Class used for rating Riverine	Wetland has multiple	e HGM classes? □ \	∕es ⊠No
NOTE: Form is not complete w	ith out the figures requested (figures cor	be combined)	

NOTE: Form is not complete with out the figures requested (figures can be combined). Source of base aerial photo/mar ESRI / Google Earth Pro

OVERALL WETLAND CATEGORY ____ II ___ (based on functions ☑ or special characteristics □)

1. Category of wetland based on FUNCTIONS

	Category I - Total score = 23 - 27
Х	Category II - Total score = 20 - 22
	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	а (Н, М, L)	
Site Potential	М	М	М	
Landscape Potential	Н	Н	L	
Value	L	Н	Н	Tota
Score Based on Ratings	6	8	6	20

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	X

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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	nd in Western Washingtor	ו
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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 guestions 1 - 7 apply, and go to Question 8. 1. Are the water levels in the entire unit usually controlled by tides except during floods? \square NO - go to 2 **YES** - the wetland class is **Tidal Fringe** - go to 1.1 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)? ✓ NO - Saltwater Tidal Fringe (Estuarine) □ YES - Freshwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands. 2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit. \checkmark NO - go to 3 **YES** - The wetland class is **Flats** If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands. 3. Does the entire wetland unit meet all of the following criteria? The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size; \Box At least 30% of the open water area is deeper than 6.6 ft (2 m). ☑ NO - go to 4 **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe) 4. Does the entire wetland unit **meet all** of the following criteria? The wetland is on a slope (slope can be very gradual), □ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks. □ The water leaves the wetland **without being impounded**. ☑ NO - go to 5 **YES** - The wetland class is **Slope NOTE**: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep). 5. Does the entire wetland unit **meet all** of the following criteria? ☑ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river, ☑ The overbank flooding occurs at least once every 2 years.

□ NO - go to 6

✓ YES - The wetland class is Riverine

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

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

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.

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:

RIVERINE AND FRESHWATER TIDAL FRINGE	VETLANDS	
Water Quality Functions - Indicators that the site functions to impro	ve water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedin flooding event:	nents during a	
Depressions cover $> \frac{3}{4}$ area of wetland	points = 8	2
Depressions cover > $\frac{1}{2}$ area of wetland	points $= 4$	2
Depressions present but cover $< \frac{1}{2}$ area of wetland	points $= 2$	
No depressions present	points $= 0$	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, classes)	not Cowardin	
Trees or shrubs $> 2/3$ area of the wetland	points = 8	
\Box Trees or shrubs > $^{1}/_{3}$ area of the wetland	points $= 6$	8
\Box Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland	points $= 6$	
Herbaceous plants (> 6 in high) > $\frac{1}{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland	points $= 0$	
Total for R 1 Add the points in the	ne boxes above	10

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

R 2.0. Does the landscape have the potential to support the water quality fu	Inction 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 incorporated area?	Yes = 1	No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1	No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1	No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1 - R 2.4?	Э		1
Other Sources <u>I-5</u>	Yes = 1	No = 0	
Total for R 2 Add the poin	ts in the boxe	es above	5

Rating of Landscape Potential If score is: \Box 3 - 6 = H \Box 1 or 2 = M \Box 0 = L Record the rating on the first page

R 3.0. Is the water quality improvement provided by the site va	luable to society?	
R 3.1. Is the wetland along a stream or river that is on the 303(tributary that drains to one within 1 mi?	d) list or on a Yes = 1 No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL lim nutrients, toxics, or pathogens?	hits for Yes = 1 No = 0	0
R 3.3. Has the site been identified in a watershed or local plan for maintaining water quality? (<i>answer YES if there is a TMDL drainage in which the unit is found</i>)	•	0
Total for R 3	Add the points in the boxes above	e 0
Rating of Value If score is: $\Box 2 - 4 = H \Box 1 = M \Box 0 = L$	Record the rating or	n the first page

RIVERINE AND FRESHWATER TIDAL FRINGE W	VETLANDS	
Hydrologic Functions - Indicators that site functions to reduce flooding a	and stream erosic	n
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 flov width of the stream or river channel (distance between banks). Calculate the ratio: 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>Trea</i> debris as forest or shrub. Choose the points appropriate for the best description (p to have >90% cover at person height. These are <u>NOT Cowardin</u> classes).		_
Forest or shrub for > $^{1}/_{3}$ area OR emergent plants > $^{2}/_{3}$ area	points $= 7$	7
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 th	e boxes above	9

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

R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?		te?	
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 incorpo	prated area? Yes = 1	No = 0	1
R 5.3 Is the up-gradient stream or river controlled by dams?	Yes = 0	No = 1	1
Total for R 5 A	dd the points in the boxe	s above	3

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

R 6.0. Are the hydrologic functions provided by the site valuable to society?		
R 6.1. Distance to the nearest areas downstream that have flooding problems	;?	
Choose the description that best fits the site.		
The sub-basin immediately 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	2
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	2
Pating of Value If score is: $\sqrt{2} \cdot 4 - H = 1 - M = 0 - I$	Pocord the rating on th	o first page

Rating of Value If score is: \Box **2 - 4 = H** \Box **1 = M** \Box **0 = L**

Record the rating on the first page

	These questions apply to w	vetlands of all HGM classes.	
HABITAT FUNCTIO	NS - Indicators that site functions to pro	ovide important habitat	
	te have the potential to provide habit		
Forested class. Cl combined for each	plant community: <i>Indicators are Com</i> neck the Cowardin plant classes in the class to meet the threshold of ¼ ac c. Add the number of structures check	ne wetland. Up to 10 patches may be or more than 10% of the unit if it is	
☐ Forested <i>If the uni</i> ☐ The Fore moss/gro	t rub (areas where shrubs have > 30% (areas where trees have > 30% cov <i>t has a Forested class, check if</i> : ested class has 3 out of 5 strata (can <u>pund-cover) that each cover 20% wit</u>	ver) 1 structure: points = 0 nopy, sub-canopy, shrubs, herbaceous,	0
		ent within the wetland. The water regime count (see text for descriptions of	
 ✓ Seasona ◯ Occasior ✓ Saturated □ Permane ✓ Seasona 	ntly flowing stream or river in, or adja Ily flowing stream in, or adjacent to, t	the wetland	2
	nge wetland ter tidal wetland	2 points 2 points	
Different patches of	of plant species in the wetland that of the same species can be combined the species. Do not include Eurasi	cover at least 10 ft ² . d to meet the size threshold and you do fan milfoil, reed canarygrass, purple points = 2 points = 1	1
	< 5 species	points = 0	
(described in H 1.1 is high, moderate,	n of habitats agrams below whether interspersion), or the classes and unvegetated ar		2

Check of point [Special habitat features: he habitat features that are present in the wetland. <i>The number of checks is the number</i> s. I Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) Standing snags (dbh > 4 in) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) 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</i> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>) 	3
Total fo		8

Rating of Site Potential If Score is: \square 15 - 18 = H \bigtriangledown 7 - 14 = M \square 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:			
0.4 % undisturbed habitat + (0 % moderate & lo	ow intensity land uses / 2) = 0.4%		
If total accessible habitat is:		0	
		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:			
16.8 % undisturbed habitat + (15.2 % moderate & lo	ow intensity land uses / 2) = 24.4%		
		2	
Undisturbed habitat > 50% of Polygon	points = 3	Z	
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		
	dd the points in the boxes above	0	

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < < 1 = LRecord 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)	ige)
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 2
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,	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: $\boxed{2} = H$ $\boxed{1} = M$ $\boxed{0} = L$	Record the rating on the first page

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

WDFW Priority Habitats

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

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

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

- □ Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- □ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: <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 (*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
Chook of	for waritaria that apply to the watland List the astarany when the appropriate aritaria are mat	
1	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
50 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	
	\Box Yes - Go to SC 1.1 \Box 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?	
	$\Box \text{ Yes} = \text{Category I} \qquad \forall \text{ No - Go to SC 1.2}$	
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	
SC 2.0. \	Wetlands of High Conservation Value (WHCV)	
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list	
	of Wetlands of High Conservation Value?	
	☐ Yes - Go to SC 2.2	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
	□ Yes = Category I	
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	
	$\Box \text{ Yes - Contact WNHP/WDNR and to SC 2.4} \qquad \forall \text{ No = Not WHCV}$	
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?	
	$\Box Yes = Category I \qquad \Box No = Not WHCV$	
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	\Box Yes - Go to SC 3.3 \Box 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?	
	$\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No} = \text{Is not a bog}$	
SC 3.3.	5	
30 3.3.	level, AND at least a 30% cover of plant species listed in Table 4?	
	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No - Go to SC 3.4}$	
	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?	
	$\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No} = \text{Is not a bog}$	
		1

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 habitals? If you answer YES you will still meed to rate the wetland based on it's 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 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 INo = Not a wetland in a coastal lagoon SC 5.1. Does the wetland meet all of the following three conditions? The wetland is larger than '\n_a ck (4550 ft ²) The wetland is larger than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). At least % of the landward edge of the wetland ha	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 (<i>needs</i> to be measured near the bottom) SC 5.1. Does the wetland meet all of the following three conditions? The wetland meet all of the following three conditions? 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 is larger than ¹ / ₁₀ ac (4350 ft ²) 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 115 and SR 109 Yes - Go to SC 6.1 Singer 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 withand 1 ac, 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			
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Image: Yes = Category III Image: No = Category IV Category of wetland based on Special Characteristics Image: No = Category IV	SC 6.3.		
Category of wetland based on Special Characteristics			
		□ Yes = Category III □ No = Category IV	
If you answered No for all types, enter "Not Applicable" on Summary Form	Categor	y of wetland based on Special Characteristics	
	If you an	swered No for all types, enter "Not Applicable" on Summary Form	

RATING SUMMARY – Western Washington

Name of wetl	land (or II	D#): WFW-22					Date of site visit:	2/25/2020
Rated by Ad	dam Merri	ill & Matt Murphy	. Tr	rained by E	cology? 🗹] Yes 🗌 No	Date of training _	Oct-19
HGM Class ι	HGM Class used for rating Depressional Wetland has multiple HGM classes? Yes No							
NC	NOTE: Form is not complete with out the figures requested (<i>figures can be combined</i>). Source of base aerial photo/map King County iMap							
OVERALL V	WETLAN	ID CATEGORY		(based on	functions	✓or specia	al characteristics \Box)	
1. Catego	ory of we	etland based on	FUNCTION	s				
	_	• •	I - Total score				Score for each	
	_		II - Total score				function based	
	_	• •	III - Total scor)		on three	
	_	Category	IV - Total scor	re = 9 - 15			ratings	
							(order of ratings	
FUNCTIO	ON	Improving Water Quality	Hydrologic	Habitat			is not important)	
FUNCTI	ON	Water Quality	Hydrologic				is not important)	
FUNCTION Site Potential		Water Quality						
	1	Water Quality List app	propriate rating	g (H, M, L)			important)	
Site Potential	1	Water Quality List app L	propriate rating	g (H, M, L) L	Total	1	<i>important</i>) 9 = H, H, H	
Site Potential Landscape P Value Score Based	l Potential	Water Quality List app L H	ropriate rating	g (H, M, L) L L	Total 16		<i>important</i>) 9 = H, H, H 8 = H, H, M 7 = H, H, L 7 = H, M, M	
Site Potential Landscape P Value	l Potential	Water Quality List app L H M	propriate rating	g (H, M, L) L L L]	<i>important</i>) 9 = H, H, H 8 = H, H, M 7 = H, H, L 7 = H, M, M 6 = H, M, L	
Site Potential Landscape P Value Score Based	l Potential	Water Quality List app L H M	propriate rating	g (H, M, L) L L L]	<i>important</i>) 9 = H, H, H 8 = H, H, M 7 = H, H, L 7 = H, M, M 6 = H, M, L 6 = M, M, M	
Site Potential Landscape P Value Score Based	l Potential	Water Quality List app L H M	propriate rating	g (H, M, L) L L L]	<i>important</i>) 9 = H, H, H 8 = H, H, M 7 = H, H, L 7 = H, M, L 6 = H, M, L 6 = M, M, M 5 = H, L, L	
Site Potential Landscape P Value Score Based	l Potential	Water Quality List app L H M	propriate rating	g (H, M, L) L L L]	<i>important</i>) 9 = H, H, H 8 = H, H, M 7 = H, H, L 7 = H, M, L 6 = H, M, L 6 = M, M, M 5 = H, L, L 5 = M, M, L	
Site Potential Landscape P Value Score Based	l Potential	Water Quality List app L H M	propriate rating	g (H, M, L) L L L			<i>important</i>) 9 = H, H, H 8 = H, H, M 7 = H, H, L 7 = H, M, L 6 = H, M, L 6 = M, M, M 5 = H, L, L	
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Site Potential Landscape P Value Score Based Ratings	l Potential d on	Water Quality List app L H M	Propriate rating	g (H, M, L) L L 3	16]	<i>important</i>) 9 = H, H, H 8 = H, H, M 7 = H, H, L 7 = H, M, L 6 = H, M, L 6 = M, M, M 5 = H, L, L 5 = M, M, L 4 = M, L, L	
Site Potential Landscape P Value Score Based Ratings	l Potential d on	Water Quality List app L H 6	Propriate rating	g (H, M, L) L L 3	16		<i>important</i>) 9 = H, H, H 8 = H, H, M 7 = H, H, L 7 = H, M, L 6 = H, M, L 6 = M, M, M 5 = H, L, L 5 = M, M, L 4 = M, L, L	
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Bog

Mature Forest

Interdunal

Old Growth Forest Coastal Lagoon

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 levels in the entire unit usually controlled by tides except during floods?
 - ☑ NO go to 2
 ☑ YES the wetland class is Tidal Fringe go to 1.1
 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - ✓ NO Saltwater Tidal Fringe (Estuarine)
 If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands. If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be used to score functions for estuarine wetlands.

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

- 3. Does the entire wetland unit meet all of the following criteria?
 - The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ✓ NO go to 4☐ YES The wetland class is Lake Fringe (Lacustrine Fringe)
- 4. Does the entire wetland unit **meet all** of the following criteria?
 - ☐ The wetland is on a slope (*slope can be very gradual*),
 - \square The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It
 - may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - \Box The water leaves the wetland **without being impounded**.
 - 🗹 NO go to 5

□ YES - The wetland class is Slope

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

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - The overbank flooding occurs at least once every 2 years.
 - ☑ NO go to 6

□ YES - The wetland class is Riverine

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

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

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.

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 riverine and a portion is depressional. Depressional + Riverine along stream within boundary of depression, therefore the HGM class used for this rating is Depressional.

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	1
\square 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. <u>The soil 2 in below the surface (or duff layer)</u> 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-shi	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	in manual.	
Area seasonally ponded is > $\frac{1}{2}$ total area of wetland	points = 4	0
Area seasonally ponded is > $\frac{1}{4}$ total area of wetland	points = 2	
Area seasonally ponded is $< \frac{1}{4}$ total area of wetland	points = 0	
••	s in the boxes above	4

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 2.0. Does the landscape have the potential to support the water quality function of the site?				
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1	No = 0	1	
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses the	nat		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 t	hat are			
not listed in questions D 2.1 - D 2.3?			1	
Source <u>Trash and exhaust particulates from vehicles.</u>	Yes = 1	No = 0		
Total for D 2 Add	the points in the boxe	s above	3	
Bating of Landscape Potential If score is: $\boxed{23}$ or $A = H$ $\boxed{10}$ or $2 = M$ $\boxed{0} = L$. Record the rating on the first page				

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		
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?		
Yes = 1 No = 0	I	
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	0	
which 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: $\Box 2 - 4 = H$ $\checkmark 1 = M$ $\Box 0 = L$ Record the rating of	the first page	

DEPRESSIONAL AND FLATS WETLA		
Hydrologic Functions - Indicators that the site functions to reduce floodin	ng 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	0
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	
O 4.2. Depth of storage during wet periods: Estimate the height of ponding above		
butlet. For wetlands with no outlet, measure from the surface of permanent water	r or it ary, the	
deepest part.	t nainta - 7	
Marks of ponding are 3 ft or more above the surface or bottom of outle	•	0
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet \Box Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	t points = 5 points = 3	0
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap wate		
Marks of ponding less than 0.5 ft (6 in)	points = 0	
0 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio		
upstream basin contributing surface water to the wetland to the area of the wetland		
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	
\square Entire wetland is in the Flats class	points = 5	
	in the boxes above	5
		-
	Record the rating on a	ine insi pag
D 5.0. Does the landscape have the potential to support hydrologic function of th		
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		1
	Yes = 1 No = 0	
D 5.3. Is more than 25% of the contributing basin of the wetland covered with inte	ensive human land	
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?		1
	Yes = 1 No = 0	
	in the boxes above	3
Rating of Landscape Potential If score is: $\Box 3 = H$ $\Box 1$ or 2 = M $\Box 0 = L$	Record the rating on a	the first pag
0 6.0. Are the hydrologic functions provided by the site valuable to society?		
0 6.1. The unit is in a landscape that has flooding problems. Choose the descrip	tion that best	
natches conditions around the wetland unit being rated. Do not add points. Cho	ose the highest	
score if more than one condition is met.		
The wetland captures surface water that would otherwise flow down-gr	adient into areas	
where flooding has damaged human or natural resources (e.g., houses		
 Flooding occurs in a sub-basin that is immediately down- 		
 Flooding occurs in a sub-basin that is immediately down- gradient of unit. 	points = 2	2
	points = 2	2
 gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. 	points = 1	2
gradient of unit.Surface flooding problems are in a sub-basin farther down-		2
 gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. 	points = 1	2
 gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. Flooding from groundwater is an issue in the sub-basin. 	points = 1	2
 gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. 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 = 1	2
 gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. 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 There are no problems with flooding downstream of the wetland. 	points = 1 points = 1	2
 gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. 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 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 	points = 1 points = 1 points = 0	
 gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. 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 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? 	points = 1 points = 1 points = 0 points = 0 Yes = 2 No = 0	2
 gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. 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 There are no problems with flooding downstream of the wetland. 0.6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? 	points = 1 points = 1 points = 0 points = 0	0 2

	These questions apply to we	etlands of all HGM classes.	
HABITAT FUNCTIO	NS - Indicators that site functions to provi	de important habitat	
H 1.0. Does the si	e have the potential to provide habitat	!?	
Forested class. Cl combined for each	plant community: <i>Indicators are Cowa</i> leck the Cowardin plant classes in the class to meet the threshold of 1⁄4 ac or e number of structures checked.		
☐ Forested If the uni ☐ The For moss/gro	t rub (areas where shrubs have > 30% (areas where trees have > 30% cover t has a Forested class, check if: ested class has 3 out of 5 strata (cano bund-cover) that each cover 20% within	r) 1 structure: points = 0 py, sub-canopy, shrubs, herbaceous,	0
	water regimes (hydroperiods) present	t within the wetland. The water regime has (see text for descriptions of hydroperiods).	
 □ Permane □ Seasona ☑ Occasion □ Saturate □ Permane □ Seasona 	ntly flooded or inundated lly flooded or inundated nally flooded or inundated	4 or more types present: points = 3 3 types present: points = 2 2 types present: points = 1 1 types present: points = 0 cent to, the wetland e wetland 2 points	0
	ter tidal wetland	2 points	
Different patches of	of plant species in the wetland that co f the same species can be combined t species. Do not include Eurasian mi	to meet the size threshold and you do not	1
in H 1.1), or the cla	n of habitats agrams below whether interspersion a sses and unvegetated areas (can incl none. <i>If you have four or more plant cla</i>	mong Cowardin plants classes (described	0

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. <i>The number of checks is the num points.</i>	iber of
 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 external least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
 Stable steep banks of fine material that might be used by beaver or muskrat for de (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or t</i> that have not yet weathered where wood is exposed) 	enning
 At least ¼ ac of thin-stemmed persistent plants or woody branches are present in a that are permanently or seasonally inundated (<i>structures for egg-laying by amphibility</i>) Invasive plants cover less than 25% of the wetland area in every stratum of plants 	pians)
H 1.1 for list of strata)	`
Total for H 1 Add the points in the boxes	s above 1

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 habit	tat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts v	vetland unit).	
Calculate:		
2 % undisturbed habitat + (% moderate & I	ow intensity land uses / 2) = 2%	
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	\dot{p} oints = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
15 % undisturbed habitat + (30 % moderate & I	ow intensity land uses / 2) = 30%	
		2
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	0

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 pla	nt	
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		I
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 I = M 0 = L Reco	rd the rating on	the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **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				
	any criteria that apply to the wetland. List the category when the appropriate criteria are met.					
SC 1.0. I	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 1.2.						
	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 I					
SC 2 0 1	Netlands of High Conservation Value (WHCV)					
SC 2.1.						
002	Wetlands of High Conservation Value?					
	✓ Yes - Go to SC 2.2					
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?					
	☐ Yes = Category I					
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. I	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					
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?					
	\Box Yes - Go to SC 3.3 \Box 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?					
1	☐ Yes = Is a Category I bog ☐ No = Is not a bog	1				

SC 4.0. F	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? 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 Ves = Category I Ves = No = Not a forested wetland for this section					
SC 5.0. \	Netlands 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)					
	\Box Yes - Go to SC 5.1 \Box 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 / 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 is larger than $1/_{10}$ ac (4350 ft ²)					
	□ Yes = Category I □ No = Category II					
SC 6.0. I	nterdunal 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					
	\square Yes - Go to SC 6.1 \square 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)?					
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 6.2}$					
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					
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 w	vetland (or l	ID #): WFW-23					Date of site visit:	2/12/2020
Rated by	Per Johns	on & Matt Murphy	, Ti	rained by E	cology? 🗹	Yes 🗌 No	Date of training	Oct-19
	NOTE: Fo	rating Depression rm is not complete Source of base aer	with out the		quested (ble HGM classes? be combined).	Yes ⊻No
OVERALI	L WETLA	ND CATEGORY	III	(based on	functions	⊡or specia	al characteristics \Box)	
1. Cate	gory of w	Category	FUNCTION - Total score II - Total score III - Total score IV - Total score IV - Total score	= 23 - 27 e = 20 - 22 re = 16 - 19			Score for each function based on three ratings (order of ratings	
FUNC	TION	Improving Water Quality	Hydrologic				is not important)	
		List app	ropriate rating	g (H, M, L)				
Site Potent	tial	L	L	L			9 = H, H, H	
Landscape	e Potential	Н	Н	L			8 = H, H, M	
Value		М	Н	L	Total		7 = H, H, L	
Score Bas Ratings	sed on	6	7	3	16		7 = H, M, M 6 = H, M, L	
2. Cate	gory base	ed on SPECIAL C	HARACTER	RISTICS o	f wetland		6 = M, M, M 5 = H, L, L 5 = M, M, L 4 = M, L, L 3 = L, L, L	
-	CHARACT	ERISTIC		Category				
	Estuarine							
	Wetland o	f High Conservation	on Value					
	Bog							
-	Mature Fo	orest						

Old Growth Forest Coastal Lagoon

None of the above

Interdunal

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 levels in the entire unit usually controlled by tides except during floods?
 - ☑ NO go to 2
 ☑ YES the wetland class is Tidal Fringe go to 1.1
 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - ✓ NO Saltwater Tidal Fringe (Estuarine) If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands. If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be used to score functions for estuarine wetlands.

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

- 3. Does the entire wetland unit meet all of the following criteria?
 - ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ✓ NO go to 4☐ YES The wetland class is Lake Fringe (Lacustrine Fringe)
- 4. Does the entire wetland unit **meet all** of the following criteria?
 - \Box The wetland is on a slope (*slope can be very gradual*),
 - \square The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It
 - may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - \Box The water leaves the wetland without being impounded.
 - 🗹 NO go to 5

□ YES - The wetland class is Slope

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

- 5. Does the entire wetland unit meet all of the following criteria?
 - The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - ☐ The overbank flooding occurs at least once every 2 years.
 - ☑ NO go to 6

□ YES - The wetland class is **Riverine**

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

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

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.

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 riverine and a portion is depressional. Depressional + Riverine along stream within boundary of depression, therefore the HGM class used for this rating is Depressional.

DEPRESSIONAL AND FLATS WETL	ANDS	
Water Quality Functions - Indicators that the site functions to in	nprove 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	1
Wetland has an unconstricted, or slightly constricted, surface outlet		
that is permanently flowing	points = 1	
\Box Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	1	
permanently flowing ditch.	points = 1	
D 1.2. <u>The soil 2 in below the surface (or duff layer)</u> 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-sh	rub, and/or Forested	
Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	0
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	in manual.	
Area seasonally ponded is > $\frac{1}{2}$ total area of wetland	points = 4	0
Area seasonally ponded is > $\frac{1}{4}$ total area of wetland	points = 2	
Area seasonally ponded is $< \frac{1}{4}$ total area of wetland	points = 0	
Total for D 1 Add the point	s in the boxes above	4

Rating of Site Potential If score is: \Box 12 - 16 = H \Box 6 - 11 = M \Box 0 - 5 = L Record the second the second the second the second the second sec

Record the rating on the first page

D 2.0. Does the landscape have the potential to support the	e water quality function of the site	∋?		
D 2.1. Does the wetland unit receive stormwater discharge	es? Yes = 1	No = 0	1	
D 2.2. Is > 10% of the area within 150 ft of the wetland in I	and uses that		1	
generate pollutants?	Yes = 1	No = 0	I	
D 2.3. Are there septic systems within 250 ft of the wetland	d? Yes = 1	No = 0	0	
D 2.4. Are there other sources of pollutants coming into th	e wetland that are			
not listed in questions D 2.1 - D 2.3?			1	
Source <u>Trash and vehicle exhaust particulates</u>	<u>S.</u> Yes = 1	No = 0		
Total for D 2	Add the points in the boxe	es above	3	
Deting of Londonne Detential if economics $(1, 2, a, A = 1)$ $(1, 4, a, 2 = M)$ $(0, -1)$ Depart the rating on the first page				

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
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 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	0
which the unit is found)? Yes = 2 No =	0
Total for D 3 Add the points in the boxes above	/e 1
Rating of Value If score is: $\Box 2 - 4 = H$ $\checkmark 1 = M$ $\Box 0 = L$ 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. <u>Characteristics of surface water outflows from the wetland:</u> Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4			
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	0		
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	Ū		
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 be	ottom of the			
outlet. For wetlands with no outlet, measure from the surface of permanent water or if a deepest part.	lry, the			
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				
upstream basin contributing surface water to the wetland to the area of the wetland unit				
The area of the basin is less than 10 times the area of the unit	points = 5	5		
The area of the basin is 10 to 100 times the area of the unit	points = 3	Ũ		
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 b	ooxes 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	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 exces Yes	= 1 No = 0	1		
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?		1		
	= 1 No = 0			
Total for D 5 Add the points in the b		3		
	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 the				
matches conditions around the wetland unit being rated. Do not add points. Choose the	e highest			
score if more than one condition is met.				
The wetland captures surface water that would otherwise flow down-gradient				
where flooding has damaged human or natural resources (e.g., houses or salm	ion redds):			
 Flooding occurs in a sub-basin that is immediately down- mediate of write 				
gradient of unit.	points = 2	2		
 Surface flooding problems are in a sub-basin farther down- aradiant 	nainta - 1			
gradient. Flooding from groundwater is an issue in the sub-basin.	points = 1 points = 1			
The existing or potential outflow from the wetland is so constrained	points – T			
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			
conveyance in a regional flood control plan?YesTotal for D 6Add the points in the b		2		
	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: <i>Indicators are Cowardin classes and strata within the</i> <i>Forested class.</i> 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 Structures or more: points = 4 3 structures: points = 2 Scrub-shrub (areas where shrubs have > 30% cover) Forested (areas where trees have > 30% cover) At 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 (<i>see text for descriptions of hydroperiods</i>).	
 Permanently flooded or inundated Seasonally 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 	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 points = 2 5 - 19 species points = 1 < 5 species points = 0	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. <i>If you have four or more plant classes or three classes and open water,</i> <i>the rating is always high.</i>	
	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) \Box 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 0 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) ☐ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1 Add the points in the boxes above 0

Rating of Site Potential If Score is: \Box 15 - 18 = H \Box 7 - 14 = M \Box 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%	6
If total accessible habitat is:	0
	°,
	its = 3
20 - 33% of 1 km Polygon poin	its = 2
10 - 19% of 1 km Polygon poin	its = 1
< 10 % of 1 km Polygon poin	its = 0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
20 % undisturbed habitat + (30 % moderate & low intensity land uses / 2) = 35	5%
Lindistudes dischiefty FOO(of Debuger	2
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	its = 3
· · ·	its = 2
· · ·	its = 1
Undisturbed habitat < 10% of 1 km Polygon poir	its = 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 poir	its = 0
Total for H 2 Add the points in the boxes a	above 0

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 pol	icies? 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 (an	y plant	
or animal on the state or federal lists)		
☐ It is mapped as a location for an individual WDFW priority spe	ecies	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 i	na	
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: $\Box 2 = H \Box 1 = M \Box 0 = L$	Record the rating on	the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ 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
	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
SC 1.0. I	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	
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?	
	$\Box \text{ Yes} = \textbf{Category I} \qquad \overline{\checkmark} \text{ No - Go to } \textbf{SC 1.2}$	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
	<i>Spartina</i> , see page 25)	
	At least 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	
	Netlands of High Conservation Value (WHCV)	
SC 2.1.	· · ·	
	Wetlands of High Conservation Value?	
	\Box Yes - Go to SC 2.2 \Box 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	
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. 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	
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	

Wetland name or number WFW-23

SC 4.0. Fore	sted Wetlands	
	es the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these	
	eria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	swer YES you will still need to rate the wetland based on its functions.	
	I-growth forests (west of Cascade crest): Stands of at least two tree species, forming	
	nulti-layered canopy with occasional small openings; with at least 8 trees/ac (20	
	es/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
	in (81 cm) or more.	
	ture forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	
	ars old OR the species that make up the canopy have an average diameter (dbh)	
	eeding 21 in (53 cm).	
	Yes = Category I Ves = Category I Vo = Not a forested wetland for this section	
	ands in Coastal Lagoons	
	es the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	e wetland lies in a depression adjacent to marine waters that is wholly or partially	
	parated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
roc		
	e lagoon in which the wetland is located contains ponded water that is saline or	
	ckish (> 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)	
	\Box Yes - Go to SC 5.1 \Box No = Not a wetland in a coastal lagoon	
	the wetland meet all of the following three conditions?	
	e wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
	has less than 20% cover of aggressive, opportunistic plant species (see list of	
	ecies on p. 100).	
	east ³ / ₄ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	zed or un-mowed grassland.	
	e wetland is larger than ¹ / ₁₀ ac (4350 ft ²)	
	□ Yes = Category I □ No = Category II	
	dunal Wetlands	
	he wetland west of the 1889 line (also called the Western Boundary of Upland	
	mership or WBUO)? <i>If you answer yes you will still need to rate the wetland</i>	
	sed on its habitat functions.	
	practical terms that means the following geographic areas: ng Beach Peninsula: Lands west of SR 103	
	•	
	ayland-Westport: Lands west of SR 105	
	ean Shores-Copalis: Lands west of SR 115 and SR 109	
SC 6.1. Is t	he wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
	tes H,H,H or H,H,M for the three aspects of function)?	
	☐ Yes = Category I	
SC 6.2. Is t	he wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
	☐ Yes = Category II	
SC 6.3. Is t	he unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1	
aci		
	□ Yes = Category III □ No = Category IV	
	wetland based on Special Characteristics	
If you answei	red No for all types, enter "Not Applicable" on Summary Form	

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): WFW-24					Date of site visit:	2/19/2020
Rated by Per Johns	on & Matt Murphy	Tra	ained by E	cology? 🗹	Yes 🗌 No	Date of training	Oct-19
HGM Class used fo	r rating Depression	nal		Wetland	d has multipl	e HGM classes? 🗌	Yes 🔽 No
NOTE: Fo	rm is not complete Source of base ae				(figures can	be combined).	
OVERALL WETLA	ND CATEGORY		(based on	functions	⊡ or specia	l characteristics \Box)	I
1. Category of w	vetland based on				_		
		I - Total score				Score for each	
		II - Total score				function based	
		III - Total sco		9		on three	
	Category	IV - Total sco	re = 9 - 15			ratings	
						(order of ratings	
FUNCTION	Improving Water Quality	Hydrologic	Habitat			is not important)	
	List app	ropriate rating	(H, M, L)				
Site Potential	М	Н	L			9 = H, H, H	
Landscape Potential	Н	Н	L			8 = H, H, M	
Value	М	Н	L	Total		7 = H, H, L	
Score Based on	7	9	3	19		7 = H, M, M	
Ratings	1	9	3	19		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 bas	ed on SPECIAL C	HARACTER	RISTICS o	of wetland			
					-		
CHARACT	TERISTIC		Category				

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

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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	

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 levels in the entire unit usually controlled by tides except during floods?
 - ☑ NO go to 2
 □ YES the wetland class is Tidal Fringe go to 1.1
 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

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

- ✓ NO go to 3
 ✓ YES The wetland class is Flats
 If your wetland can be classified as a Flats wetland, use the form for Depressional wetlands.
- 3. Does the entire wetland unit meet all of the following criteria?
 - ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ✓ NO go to 4
 ✓ YES The wetland class is Lake Fringe (Lacustrine Fringe)
- 4. Does the entire wetland unit meet all of the following criteria?
 - ☐ The wetland is on a slope (*slope can be very gradual*),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It
 - may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - \Box The water leaves the wetland **without being impounded**.
 - 🗹 NO go to 5

YES - The wetland class is **Slope**

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

- 5. Does the entire wetland unit meet all of the following criteria?
 - The unit is in a valley, or stream channel, where it gets inundated by overbank flooding
 - from that stream or river,
 - \Box The overbank flooding occurs at least once every 2 years.
 - NO go to 6

YES - The wetland class is **Riverine**

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

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

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

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

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

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

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	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 riverine and a portion is depressional. Depressional + Riverine along stream within boundary of depression, therefore 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).	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly		0
constricted permanently flowing outlet.	points = 2	3
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
	points – I	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	
D 1.2. <u>The soil 2 in below the surface (or duff layer)</u> 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-shi		
Forested Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area	points = 3	1
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 i	n manual	
Area seasonally ponded is $> \frac{1}{2}$ total area of wetland	points = 4	2
Area seasonally ponded is $> \frac{1}{2}$ total area of wetland Area seasonally ponded is $> \frac{1}{4}$ total area of wetland	points = 2	2
	•	
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
	in the boxes above	6

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 2.0. Does the landscape have the potential to support the wa	ater quality function of the si	te?	
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		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 we	tland that are		
not listed in questions D 2.1 - D 2.3?			1
Source Trash and herbicide runoff	Yes = 1	No = 0	
Total for D 2	Add the points in the boxe	s above	3
	Add the points in the boxe		3

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	Ũ
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) lis	st?	1
Yes	= 1	No = 0	I
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			0
which the unit is found)? Yes	= 2	No = 0	
Total for D 3 Add the points in the I	юхе	es above	1
Rating of Value If score is: 2 - 4 = H I = M 0 = L Record	l the	rating on	the first page

DEPRESSIONAL AND FLATS WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and		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	po	-
a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet		
that is permanently flowing	points = 0	
0 4.2. Depth of storage during wet periods: Estimate the height of ponding above the		
the outlet. For wetlands with no outlet, measure from the surface of permanent water of		
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	7
\square Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	
Marks of ponding less than 0.5 ft (6 in)	points = 0	
0 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the		
upstream basin contributing surface water to the wetland to the area of the wetland un		
\Box 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	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	<u> </u>	14
Rating of Site Potential If score is: 🗹 12 - 16 = H 🗌 6 - 11 = M 🗌 0 - 5 = L Record	d the rating on	the first pag
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
D 5.2. Is $> 10\%$ of the area within 150 ft of the wetland in land uses that generate exce		
Yes		1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive		
and uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	onanian	1
Yes	= 1 No = 0	
Total for D 5 Add the points in the	-	3
· · · · · · · · · · · · · · · · · · ·	the rating on	
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 the	hat bast	
matches conditions around the wetland unit being rated. Do not add points. <u>Choose th</u>	<u>ie nigriesi</u>	
score if more than one condition is met. The wetland contures surface water that would athennice flow down gradien	t into areas	
The wetland captures surface water that would otherwise flow down-gradien		
where flooding has damaged human or natural resources (e.g., houses or sal	mon redds):	
 Flooding occurs in a sub-basin that is immediately down- mediant of unit 		
gradient of unit.	points = 2	2
 Surface flooding problems are in a sub-basin farther down- 		
gradient.	points = 1	
Flooding from groundwater is an issue in the sub-basin.	points = 1	
☐ The existing or potential outflow from the wetland is so constrained		
by human or natural conditions that the water stored by the wetland		
by number of natural conditions that the water stored by the wettand		

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: <i>Indicators are Cowardin classes and strata within the</i> <i>Forested class.</i> Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of $\frac{1}{4}$ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.	
 Aquatic bed Aquatic bed Emergent Scrub-shrub (areas where shrubs have > 30% cover) Scrub-shrub (areas where trees have > 30% cover) Forested (areas where trees have > 30% cover) Istructure: 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 	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 (<i>see text for descriptions of</i> <i>hydroperiods</i>).	
 Permanently flooded or inundated Seasonally flooded or inundated Seasonally flooded or inundated Occasionally flooded or inundated 2 types present: points = 1 Saturated only Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland 	2
Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species 2	
Count the number of plant species in the wetland that cover at least 10 ft ² . <i>Different patches of the same species can be combined to meet the size threshold and you do not have to name the species.</i> Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle	0
If you counted:> 19 speciespoints = 25 - 19 speciespoints = 1< 5 species	
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. <i>If you have four or more plant classes or three classes and open water, the rating is always high.</i>	
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 checks is the num 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 ext at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for least 33 ft (10 m) □ Stable steep banks of fine material that might be used by beaver or muskrat for de (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or that have not yet weathered where wood is exposed</i>) □ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in that are permanently or seasonally inundated (<i>structures for egg-laying by amphils</i> □ Invasive plants cover less than 25% of the wetland area in every stratum of plants <i>H</i> 1.1 for list of strata) 	ends at enning trees areas <i>ians</i>)
Total for H 1 Add the points 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 site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
1 % undisturbed habitat + (% moderate & low intensity land uses / 2) = 6%	
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 points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
<u>30</u> % undisturbed habitat + (<u>10</u> % moderate & low intensity land uses / 2) = 35%	
Undisturbed habitat > 50% of Polygon points = 3	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	-1

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M 2 < 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 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 page)	je)	
It provides habitat for Threatened or Endangered species (a)	any plant	
or animal on the state or federal lists)		
It is mapped as a location for an individual WDFW priority s	species	0
It is a Wetland of High Conservation Value as determined to	by the	0
Department of Natural Resources		
It has been categorized as an important habitat site in a loc	al or	
regional comprehensive plan, in a Shoreline Master Plan, c	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 th	he first page

of Value If Score is: $\square 2 = H \square 1 = M \square 0$ Raung

Record the I ting on the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **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
Chook of	for variations that apply to the walland List the actor on when the appropriate ariteria are mat	
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
30 1.0.1	Does the wetlands meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	\Box Yes - Go to SC 1.1 \Box 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	
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?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Not WHCV}$	
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?	
00.00	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0. I	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?	
	\Box Yes - Go to SC 3.3 \Box 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?	
	\Box Yes = Is a Category I bog \Box 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	
00 4.0.1	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	
SC 5 0 1	Wetlands in Coastal Lagoons	
30 5.0.	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)	
	\Box Yes - Go to SC 5.1 \Box No = Not a wetland in a coastal lagoon	
	Does the wetland meet all of the following three conditions?	
	and has less than 20% cover of aggressive, opportunistic plant species (see list of	
	species on p. 100).	
	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 is larger than $\frac{1}{10}$ ac (4350 ft ²)	
	☐ Yes = Category I	
SC 6.0. I	nterdunal 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	
	\Box Yes - Go to SC 6.1 \Box 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)?	
	\Box Yes = Category I \Box 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?	
	\Box Yes = Category II \Box 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	
-	y of wetland based on Special Characteristics	
If you an	swered No for all types, enter "Not Applicable" on Summary Form	

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): WFW-25					Date of site visit:	2/19/2020
Rated by Per Johns	on & Matt Murphy	_ Tra	ained by E	cology? 🗸	Yes 🗌 No	Date of training	Oct-19
HGM Class used for	rating Depression	nal		Wetland	t has multiple	e HGM classes? 🗌	Yes 🔽 No
	rm is not complete		-	•	(figures can	be combined).	
	Source of base aer	ial photo/map	King Cour	ity iMap			
OVERALL WETLA	ND CATEGORY	III	(based on	functions	✓ or specia	I characteristics \Box)	1
1. Category of w	vetland based on				F		
		I - Total score				Score for each	
	Category	II - Total score	e = 20 - 22		1	function based	
	X Category	III - Total scor	re = 16 - 19)		on three	
	Category	IV - Total scor	re = 9 - 15		i	ratings	
						order of ratings	
FUNCTION	Improving	Hydrologic	Habitat			is not	
FUNCTION	Water Quality					important)	
		ropriate rating	(H, M, L)			1	
Site Potential	M	, и	L			9 = H, H, H	
Landscape Potential	Н	Н	L			8 = H, H, M	
Value	М	н	M	Total	- 1	7 = H, H, L	
Score Based on	_					7 = H, M, M	
Ratings	7	8	4	19	1 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 bas	ed on SPECIAL (CHARACTER	RISTICS o	of wetland			

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

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?

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

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

- ✓ NO go to 3
 ✓ YES The wetland class is Flats
 If your wetland can be classified as a Flats wetland, use the form for Depressional wetlands.
- 3. Does the entire wetland unit **meet all** of the following criteria?
 - The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - Image: NO go to 4Image: YES The wetland class is Lake Fringe (Lacustrine Fringe)
- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (*slope can be very gradual*),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It
 - may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - \Box The water leaves the wetland **without being impounded**.
 - 🗹 NO go to 5

YES - The wetland class is **Slope**

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

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

- $\hfill \Box$ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding
- from that stream or river,
- The overbank flooding occurs at least once every 2 years.
- 🗹 NO go to 6

 \Box YES - The wetland class is **Riverine**

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

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

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:

A portion of the wetland is riverine and a portion is depressional. Depressional + Riverine along stream within boundary of depression, therefore the HGM class used for this rating is Depressional.

DEPRESSIONAL AND FLATS WETLANDS			
Water Quality Functions - Indicators that the site functions to improve water	er 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)			
	points = 3		
Wetland has an intermittently flowing stream or ditch, OR highly			
	points = 2 2		
\square Wetland has an unconstricted, or slightly constricted, surface outlet			
	oints = 1		
\square Wetland is a flat depression (QUESTION 7 on key), whose outlet is			
a permanently flowing ditch. po	oints = 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			
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or	r		
Forested Cowardin classes):			
Wetland has persistent, ungrazed, plants > 95% of area p	points = 5		
Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area p	points = 3		
Wetland has persistent, ungrazed plants > ¹ / ₁₀ of area p	points = 1		
Wetland has persistent, ungrazed plants < ¹ / ₁₀ of area p	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	ooints = 4 4		
Area seasonally ponded is > 1⁄4 total area of wetland	points = 2		
	oints = 0		
Total for D 1 Add the points in the box	es above 9		
Rating of Site Potential If score is: 🗌 12 - 16 = H 🗹 6 - 11 = M 🗍 0 - 5 = L Record the	e rating on the first pa		

Rating of Site Potential If score is:
$$\Box$$
 12 - 16 = H \Box 6 - 11 = M \Box 0 - 5 = L Record the rating c

D 2.0. Does the landscape have the potential to support the water quality function of the site?				
Yes = 1	No = 0	1		
		1		
Yes = 1	No = 0	I		
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0				
not listed in questions D 2.1 - D 2.3?				
Yes = 1	No = 0			
Total for D 2 Add the points in the boxes above				
	Yes = 1 Yes = 1 Yes = 1 Yes = 1	Yes = 1 No = 0 Yes = 1 No = 0 Yes = 1 No = 0 Yes = 1 No = 0		

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 303(d) list?	1
Yes = 1 No = 0	I
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	0
which 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 J 1 = M 0 = L Record the rating on	the first page

4.1. Characteristics of surface water outflows from the welland: 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 points = 2 constricted permanently flowing outlet points = 1 that is permanently flowing outlet points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet points = 1 that is permanently flowing wet periods: Estimate the height of ponding above the bottom of points = 0 14.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of points = 7 Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 5 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 3 Wetland is flat tub thas small depressions on the surface that trap water points = 0 Als: Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of postnes = 3 The wetland is in the Flats class 0 = Different abis in is less than 100 times the area of the unit points = 3 1 = The area of the basin is nore than 100 times the area of the unit points = 3 0 = Dentice wetland unit receive stormwater discharge? Yes = 1 No = 0 1 = 5.0	vetiand name of number <u>wrw-25</u>	
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Rating of Value If score is: $\boxed{2} \cdot 4 = H$ $\boxed{1} = M$ 0 = L 2

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</i> <i>Forested class.</i> 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 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 (<i>see text for descriptions of</i> <i>hydroperiods</i>).	
 Permanently flooded or inundated Seasonally 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 	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	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. <i>If you have four or more plant classes or three classes and open</i> <i>water, the rating is always high.</i>	
	0
None = 0 pointsLow = 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 points.</i> ✓ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ✓ Standing snags (dbh > 4 in) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the we least 33 ft (10 m) C Stable steep banks of fine material that might be used by beaver or mu (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut that have not yet weathered where wood is exposed</i>) ✓ At least ¼ ac of thin-stemmed persistent plants or woody branches are that are permanently or seasonally inundated (<i>structures for egg-laying</i> Invasive plants cover less than 25% of the wetland area in every strature <i>H 1.1 for list of strata</i>) 	5 ft long) g plants extends vetland, for at uskrat for denning <i>t shrubs or trees</i> e present in areas g by amphibians)	3
· · · · · · · · · · · · · · · · · · ·	n the boxes above	6

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

H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
1 % undisturbed habitat + (10 % moderate & low intensity land uses / 2) = 6%	
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 points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
25 % undisturbed habitat + (10 % moderate & low intensity land uses / 2) = 30%	
Lindisturbed behitsts 500/ of Delumen	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 pol	icies? Choose	
only the highest score that applies to the wetland being rated.		
Site meets ANY of the following criteria:	points = 2	
Lt 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 specified and the specified of the specified o	cies	1
It is a Wetland of High Conservation Value as determined by the second secon	he	I
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	na	
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 ValueIf Score is: \Box 2 = H \Box 1 = M \Box 0 = LR	ecord the rating on	the first page

WDFW Priority Habitats

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

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

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type							
Check off any criteria that apply to the wetland. List the category when the appropriate criteria are met.							
SC 1.0. I	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						
SC 1.1.	□ Yes - Go to SC 1.1 □ No = Not an estuarine wetland Is the wetland within a National Wildlife Refuge, National Park, National Estuary						
30 1.1.	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific						
	Reserve designated under WAC 332-30-151?						
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 1.2}$						
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						
SC 2 0 1	Wetlands of High Conservation Value (WHCV)						
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list						
	of Wetlands of High Conservation Value?						
	✓ Yes - Go to SC 2.2						
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?						
	□ Yes = Category I						
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						
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						
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						

0040					
SC 4.0. I	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.				
	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).				
	exceeding 21 in (55 cm).				
	Yes = Category I Ves = Category I Ves = No = Not a forested wetland for this section				
SC 5.0. \	Netlands 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)				
	\Box Yes - Go to SC 5.1 \Box No = Not a wetland in a coastal lagoon				
SC 5 1 I	Does the wetland meet all of the following three conditions?				
	and has less than 20% cover of aggressive, opportunistic plant species (see list of				
	species on p. 100).				
	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 is larger than $\frac{1}{10}$ ac (4350 ft ²)				
	Yes = Category I				
SC 6.0. I	nterdunal 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 Ves - Go to SC 6.1 Vo = 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)?				
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 6.2}$				
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?				
30 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				
	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				
In you di	swered no for all types, effet inot Applicable Off Suffilliary FUIII				

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WFW						Date of site visit:	2/18/2020
Rated by K. Moser		Trained by Ecology? ☑ Yes ☐ No			Date of training	Jun-18	
HGM Class used for	rating Riverine			Wetland	d has multip	le HGM classes? 🔽	Yes □No
NOTE: Fo	rm is not complet Source of base ae		-	equested (figures can	be combined).	
OVERALL WETLA	ND CATEGORY	III	(based on	functions	✓ or specia	I characteristics (
1. Category of wetland based on FUNCTIONS Category I - Total score = 23 - 27 Category II - Total score = 20 - 22 X Category III - Total score = 16 - 19 Category IV - Total score = 9 - 15 (order of ratings)							
FUNCTION	Improving Water Quality	Hydrologic	Habitat			is not important)	
	List ap	propriate rating	g (H, M, L)				
Site Potential	М	M	М			9 = H, H, H	
Landscape Potential	Н	М	L			8 = H, H, M	
Value	М	Н	М	Total		7 = H, H, L	
Score Based on 7 Ratings		7	5	19		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	X

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?
 - ☑ NO go to 2
 ☑ YES the wetland class is Tidal Fringe go to 1.1
 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

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

- 3. Does the entire wetland unit meet all of the following criteria?
 - ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ✓ NO go to 4☐ YES The wetland class is Lake Fringe (Lacustrine Fringe)
- 4. Does the entire wetland unit **meet all** of the following criteria?
 - ☑ The wetland is on a slope (*slope can be very gradual*),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - ☑ The water leaves the wetland **without being impounded**.
 - \square NO go to 5

✓ YES - The wetland class is Slope

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

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - ☑ The overbank flooding occurs at least once every 2 years.
 - NO go to 6

✓ YES - The wetland class is Riverine

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

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

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 WFW-26 has riverine and slope HGM class components, therefore was rated as a riverine wetland.

RIVERINE AND FRESHWATER TIDAL FRINGE	WEILANDS	
Water Quality Functions - Indicators that the site functions to impr	ove water quality	
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sedim flooding event:	nents during a	
Depressions cover $> \frac{3}{4}$ area of wetland	points = 8	0
Depressions cover > ½ area of wetland	points = 4	0
Depressions present but cover < $\frac{1}{2}$ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, classes)	not Cowardin	
Trees or shrubs > 2 / ₃ area of the wetland	points = 8	
\Box Trees or shrubs > 1 / ₃ area of the wetland	points = 6	8
\Box Herbaceous plants (> 6 in high) > 2 / ₃ area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > $^{1}/_{3}$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland	points = 0	
Total for R 1 Add the points in	the boxes above	8

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

R 2.0. Does the landscape have the potential to support the water quality function	on of the site	e?		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2	No = 0	2	
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1	No = 0	1	
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1	No = 0	0	
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1	No = 0	1	
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1 - R 2.4?			1	
Other Sources high amount of trash in wetland	Yes = 1	No = 0		
Total for R 2 Add the points	in the boxe	es above	5	
Betting of Long language Betagetick If a sure is 20.0 - 11. A sure - M. De-L. Descend the nation of				

Rating of Landscape Potential If score is: 3 - 6 = H 1 or 2 = M D = L Record the rating on 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, toxics, or pathogens?	Yes = 1	No = 0	1
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (<i>answer YES if there is a TMDL for the drainage in which the unit is found</i>)	X		0
Total for R 3 Add the points		No = 0 s above	
Pating of Value If score is: $\boxed{2} \cdot 4 = H$ $\boxed{2} \cdot 1 = M$ $\boxed{0} = I$	Pecord the	rating on	the first nane

Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\Box 0 = L$

Record the rating on the first page

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS		
Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosic	on	
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</i> <u>NOT Cowardin</u> classes).		
Forest or shrub for > $1/_3$ area OR emergent plants > $2/_3$ area points = 7	1	
Forest or shrub for $> 1/10$ area OR emergent plants $> 1/3$ area points = 4		
Plants do not meet above criteria points = 0		
Total for R 4 Add the points in the boxes above	9	
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 pag	

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 incorpo	orated 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 boxe	s above	2

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

R 6.0. Are the hydrologic functions provided by the site valuable to society?		
R 6.1. Distance to the nearest areas downstream that have flooding problems?)	
Choose the description that best fits the site.		
The sub-basin immediately 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	2
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 point	s in the boxes above	2
Pating of Value If score is: $\sqrt{2} - 4 = H$ $\sqrt{4} = M$ $\sqrt{0} = I$	Record the rating on	the first name

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: <i>Indicators are Cowardin classes and strata within the</i> <i>Forested class.</i> 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 Aquatic bed Emergent Scrub-shrub (areas where shrubs have > 30% cover) Scrub-shrub (areas where trees have > 30% cover) Forested (areas where trees have > 30% cover) Istructure: 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 	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 Seasonally flooded or inundated Occasionally flooded or inundated 2 types present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 Saturated only Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland 	2
 □ Lake Fringe wetland □ 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 points = 2 5 - 19 species points = 1	1
< 5 species points = 0	
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. <i>If you have four or more plant classes or three classes and open water, the rating is always high.</i> 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. 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 a	
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 1/4 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	. 7

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 w	etland unit).	
Calculate:		
2 % undisturbed habitat + (1 % moderate & lo	w intensity land uses / 2) = 2.5%	
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	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
10 % undisturbed habitat + (10 % moderate & lo	w intensity land uses / 2) = 15%	
		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 pol	icies? 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 (an)	y plant
or animal on the state or federal lists)	
Lt is mapped as a location for an individual WDFW priority spe	ecies
It is a Wetland of High Conservation Value as determined by	the I
Department of Natural Resources	
Lt has been categorized as an important habitat site in a local	or
regional comprehensive plan, in a Shoreline Master Plan, or i	na
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 I 1 = M 0 = L	Record the rating on the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: <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 (*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	
	any criteria that apply to the wetland. List the category when the appropriate criteria are met.		
SC 1.0. I	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		
	\Box Yes - Go to SC 1.1 \Box 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?		
	\Box Yes = Category I \Box No - Go to SC 1.2		
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?		
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,		
	and has less than 10% cover of non-native plant species. (If non-native species are		
	<i>Spartina</i> , see page 25)		
	At least 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		
	Netlands of High Conservation Value (WHCV)		
SC 2.1.	• •		
	Wetlands of High Conservation Value?		
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?		
30 2.2.	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Not WHCV}$		
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		
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?		
	\Box Yes - Go to SC 3.3 \Box 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?		
	$\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No = Is not a bog}$		
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. F	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 Ves = Category I Ves = No = Not a forested wetland for this section	
SC 5.0. \	Netlands 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)	
	\Box Yes - Go to SC 5.1 \Box 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 / 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 is larger than $1/_{10}$ ac (4350 ft ²)	
	□ Yes = Category I □ No = Category II	
SC 6.0. I	nterdunal 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	
	\square Yes - Go to SC 6.1 \square 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)?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 6.2}$	
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	
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 #):	WFW-27	Date of site visit:	2/18/2020
Rated by Kaylee Moser	Trained by Ecology? ⊡ Yes □ No	Date of training	Jun-18
HGM Class used for rating	Slope Wetland has multip	le HGM classes? 🗌	Yes 🗹 No
	ot complete with out the figures requested (figures can of base aerial photo/map ESRI	be combined).	
Source			
OVERALL WETLAND CA	TEGORY (based on functions 🗹 or specia	al characteristics \Box)	
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	

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	1 (H, M, L)	
Site Potential	М	М	L	
Landscape Potential	М	М	L	
Value	М	Н	М	Total
Score Based on Ratings	6	7	4	17

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

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

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?

 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - □ NO Saltwater Tidal Fringe (Estuarine)
 □ YES Freshwater Tidal Fringe
 If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands.
 If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be used to score functions for estuarine wetlands.

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

- ✓ NO go to 3
 ✓ YES The wetland class is Flats
 If your wetland can be classified as a Flats wetland, use the form for Depressional wetlands.
- 3. Does the entire wetland unit **meet all** of the following criteria?
 - The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ✓ NO go to 4
 ✓ YES The wetland class is Lake Fringe (Lacustrine Fringe)
- 4. Does the entire wetland unit meet all of the following criteria?
 - ☑ The wetland is on a slope (*slope can be very gradual*),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - ☑ The water leaves the wetland **without being impounded**.
 - \square NO go to 5

✓ YES - The wetland class is Slope

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

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - The overbank flooding occurs at least once every 2 years.
 - 🗌 NO go to 6

☑ YES - The wetland class is Riverine

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

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

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

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

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

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

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

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

SLOPE WETLANDS		
Water Quality Functions - Indicators that the site functions to imp	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 the elevation for every 100 ft of horizontal distance)	ft vertical drop in	
Slope is 1% or less	points = 3	0
Slope is > 1% - 2%	points = 2	0
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		0
(use NRCS definitions):	Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and polluta Choose the points appropriate for the description that best fits the plants in the v means you have trouble seeing the soil surface (>75% cover), and uncut means mowed and plants are higher than 6 in.	vetland. <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 > ¼ of area	points = 1	
Does not meet any of the criteria above for plants	points = 0	
Total for S 1 Add the points i	n the boxes above	6
Rating of Site Potential If score is: \Box 12 = H \Box 6 - 11 = M \Box 0 - 5 = I	Record the rating on a	the first nade

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

S 2.0. Does the landscape have the potential to support the water quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in	1
land uses that generate pollutants? Yes = 1 No = 0	I
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?	1
Other Sources <u>a high amount of trash in wetland</u> Yes = 1 No = 0	
Total for S 2 Add the points in the boxes above	2
Rating of Landscape Potential If score is: $\Box 1 - 2 = M$ $\Box 0 = L$ Record the rating on	the first page

Rating of Landscape Potential	If score is:	✓ 1 - 2 = M	0 = L
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S 3.0. Is the water quality improvement provided by the site valuab	e to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a str lake, or marine water that is on the 303(d) list?	eam, river, Yes = 1 No = 0	
S 3.2. Is the wetland in a basin or sub-basin where water quality is <i>At least one aquatic resource in the basin is on the 303(d) list.</i>	an issue? Yes = 1 No = 0	
S 3.3. Has the site been identified in a watershed or local plan as ir maintaining water quality? Answer YES if there is a TMDL for the b which the unit is found?		
Total for S 3 Ad	d the points in the boxes above 1	
Rating of Value If score is: $\Box 2 - 4 = H \bigtriangledown 1 = M \Box 0 = L$	Record the rating on the first	page

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flo	oding and stream ero	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 points appropriate for the description that best fits conditions in the wetland. St should be thick enough (usually > $1/8$ in), or dense enough, to remain erect due to the second structure of the second structu	tems of plants	1
Dense, uncut, rigid plants cover > 90% of the area of the wetland	points = 1	
All other conditions	points = 0	
Pating of Site Potential If accretic: $\Box I = M$ $\Box 0 = I$	Percent the rating on	the first page

Rating of Site Potential If score is: $\boxed{1} = M$ $\boxed{0} = L$

Record the rating on the first page

S 5.0. Does the landscape have the potential to support hydrologic functions of	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		
Rating of Landscape Potential If score is: <a>I = 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., houses or salmon redds)	points = 2	2
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for S 6 Add the points	in the boxes above	2
Rating of Value If score is: 2 - 4 = H 1 = M 0 = L	Record the rating on	the first page

NOTES and FIELD OBSERVATIONS:

The riverine component is less than 10% of the wetland, therefore WFW27 is rated as slope.

	These questions apply to v	vetlands of all HGM classes.	
HABITAT FUNCTIO	DNS - Indicators that site functions to pro	vide important habitat	
	ite have the potential to provide habit		
Forested class. C combined for each	he number of structures checked.		4
 □ Emerger □ Scrub-sl □ Forested If the un □ The Formoss/gr 	nt nrub (areas where shrubs have > 30% d (areas where trees have > 30% cove it has a Forested class, check if : rested class has 3 out of 5 strata (can ound-cover) that each cover 20% with	3 structures: points = 2 2 cover) 2 structures: points - 1 er) 1 structure: points = 0 opy, sub-canopy, shrubs, herbaceous,	1
		nt within the wetland. The water regime ount (see text for descriptions of	
☐ Seasona ☐ Occasio ☑ Saturate ☐ Perman	ently flooded or inundated ally flooded or inundated nally flooded or inundated d only ently flowing stream or river in, or adja ally flowing stream in, or adjacent to, t		1
🗌 Lake Fr	inge wetland ater tidal wetland	2 points 2 points	
Different patches	species. Do not include Eurasian n	to meet the size threshold and you do not	1
If you counted:	> 19 species 5 - 19 species < 5 species	points = 2 points = 1 points = 0	
(described in H 1.	n of habitats agrams below whether interspersion 1), or the classes and unvegetated ar w, or none. <i>If you have four or more</i> p	•	
\bigcirc	\bigcirc		1
None = 0 points	Low = 1 point	Moderate = 2 points	
All three diagrams in this row are			

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:	
2 % undisturbed habitat + (1 % moderate & low intensity land uses / 2) = 2.5	%
If total accessible habitat is:	0
> 1/3 (33.3%) of 1 km Polygon points	s = 3
20 - 33% of 1 km Polygon points	s = 2
10 - 19% of 1 km Polygon points	s = 1
< 10 % of 1 km Polygon points	s = 0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
10 % undisturbed habitat + (10 % moderate & low intensity land uses / 2) = 15	%
	1
Undisturbed habitat > 50% of Polygon points	s = 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	s = 0
H 2.3 Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points =	
≤ 50% of 1km Polygon is high intensity points	s = 0
Total for H 2 Add the points in the boxes at	oove -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 polic	cies? Choose
only the highest score that applies to the wetland being rated .	
Site meets ANY of the following criteria:	points = 2
\Box 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 spec	cies
It is a Wetland of High Conservation Value as determined by the second secon	ne l
Department of Natural Resources	
It has been categorized as an important habitat site in a local o	r
regional comprehensive plan, in a Shoreline Master Plan, or in	а
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: Image: Ima	cord the rating on the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- □ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **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
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
50 1.0.1	Does the wetlands the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	\Box Yes - Go to SC 1.1 \Box 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.		
	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	
	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.	0	
	□ 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	
	\Box Yes - Contact WNHP/WDNR and to SC 2.4 \Box 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?	
80.20		
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,	
00 0.1.	that compose 16 in or more of the first 32 in of the soil profile?	
	\Box Yes - Go to SC 3.3 \Box 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?	
	\Box Yes - Go to SC 3.3 \Box 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	

00 10		
SC 4.0. I	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 Ves = 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)	
	\Box Yes - Go to SC 5.1 \Box 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 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 is larger than $^{1}/_{10}$ ac (4350 ft ²)	
	☐ Yes = Category I ☐ No = Category II	
50601	nterdunal Wetlands	
30 0.0.1	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	
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)?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 6.2}$	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
0.2.	$\Box \text{ Yes} = \text{Category II} \qquad \Box \text{ No - Go to SC 6.3}$	
0000	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
SC 6.3.		
	□ Yes = Category III □ No = Category IV	
	y of wetland based on Special Characteristics	
If you an	swered No for all types, enter "Not Applicable" on Summary Form	

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): WFW-32					Date of site visit:	4/20/2023
Rated by Kaylee Mo	ser and A. Thom	T	rained by E	cology? 🗹	Yes 🗌 No	Date of training	Oct.2018
HGM Class used for	rating Depression	nal		Wetland	has multip	ole HGM classes? 🗌 `	Yes ⊡No
NOTE: Fo	rm is not complete		-	• •	•	be combined).	
	Source of base aer	ial photo/map	ESRI / Go	ogle Earth F	Pro		
OVERALL WETLA	ND CATEGORY	III	(based on	functions	∕or specia	al characteristics	
			<u>.</u> .		·		
1. Category of w	vetland based on	FUNCTION			1	Score for each	
		I - Total score				function based	
		III - Total score				on three	
		IV - Total scol)		ratings	
						(order of ratings	
	Improving	Hydrologic	Habitat			is not	
FUNCTION	Water Quality	, .				important)	
	List app	propriate rating	g (H, M, L)				
Site Potential	М	L	L			9 = H, H, H	
Landscape Potential	Н	Н	L			8 = H, H, M	
Value	L	Н	L	Total		7 = H, H, L	
Score Based on	6	7	3	16		7 = H, M, M	
Ratings		-	Ũ			6 = H, M, L	
						6 = M, M, M	
						5 = H, L, L	
						5 = M, M, L	
						4 = M, L, L	
2 Catagony has	od on SPECIAL C			wotland	l	3 = L, L, L	
2. Category bas	ed on SPECIAL C		1311030	wettand			

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

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?

☑ NO - go to 2	YES - the wetland class is Tidal Fringe - go to 1.1
----------------	---

- 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
- □ NO Saltwater Tidal Fringe (Estuarine) □ YES Freshwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

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

- 3. Does the entire wetland unit meet all of the following criteria?
 - ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - NO go to 4

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

- 4. Does the entire wetland unit meet all of the following criteria?
 - The wetland is on a slope (*slope can be very gradual*),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - ☐ The water leaves the wetland **without being impounded**.
 - ☑ NO go to 5

□ YES - The wetland class is Slope

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

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

- ☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- ☐ The overbank flooding occurs at least once every 2 years.
- ☑ NO go to 6

□ YES - The wetland class is **Riverine**

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

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

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 32 receives water from a stormwater vault at its southern end and discharges into a stormwater feature at its northern edge.

DEPRESSIONAL AND FLATS WETLAN	IDS	
Water Quality Functions - Indicators that the site functions to impr	ove 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	U
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub	, and/or Forested	
Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	3
Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ 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 r	nanual.	
Area seasonally ponded is > $\frac{1}{2}$ total area of wetland	points = 4	4
Area seasonally ponded is > $\frac{1}{4}$ total area of wetland	points = 2	
Area seasonally ponded is $< \frac{1}{4}$ total area of wetland	points $= 0$	
Total for D 1 Add the points ir	n the boxes above	9

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

Yes = 1 Yes = 1		1 1
Yes = 1	No = 0	1
Yes = 1	No = 0	I
Yes = 1	No = 0	0
		1
Yes = 1	No = 0	
the boxe	es above	3
	Yes = 1	Yes = 1 No = 0 Yes = 1 $No = 0$ the boxes above

Rating of Landscape Potential If score is: \Box 3 or 4 = H \Box 1 or 2 = M \Box 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, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? Yes = 1 No = 0	0
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (<i>answer YES if there is a TMDL for the basin in which the unit is found</i>)? Yes = 2 No = 0	0
Total for D 3 Add the points in the boxes above	0
Rating of Value If score is: $\Box 2 - 4 = H$ $\Box 1 = M$ $\boxdot 0 = L$ 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	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	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.	
\Box 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: $\Box 12 - 16 = H$ $\Box 6 - 11 = M$ $\Box 0 - 5 = L$ Record the rating or	n 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: $\Box 3 = H$ $\Box 1$ 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	2
 Surface flooding problems are in a sub-basin farther down- 	2
gradient. points = 1	
\Box 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	1
☐ There are no problems with flooding downstream of the wetland. points = 0	1
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	2
Bating of Value If score is: $\sqrt{2} \cdot 4 - H$ $\sqrt{1} - M$ $\sqrt{0} - I$ Record the rating of	the first name

Rating of Value If score is: $\boxed{2} - 4 = H$ $\boxed{1} = M$ ∐ 0 = L Record the rating on the first page

Wetland name or number WFW-32

H 1.0. Does the site have the potential to provide habitat?	ortant habitat	
H 1.1. Structure of plant community: <i>Indicators are Cowardin class.</i> Check the Cowardin plant classes in the wetland. Up to a seach class to meet the threshold of 1/4 ac or more than 10% of the Add the number of structures checked.	10 patches may be combined for	
 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 moss/ground-cover) that each cover 20% within the F Hydroperiods 	1 structure: points = 0 p-canopy, shrubs, herbaceous,	1
Check the types of water regimes (hydroperiods) present within	the wetland. The water regime has	
b cover more than 10% of the wetland or $\frac{1}{4}$ ac to count (see <i>te</i> .		
 Permanently flooded or inundated Seasonally flooded or inundated Occasionally flooded or inundated Saturated only Permanently flowing stream or river in, or adjacent to, Seasonally flowing stream in, or adjacent to, the wetlation 		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 le Different patches of the same species can be combined to meet have to name the species. Do not include Eurasian milfoil, re loosestrife, Canadian thistle		0
	noints – 1	
f you counted: > 19 species 5 - 19 species < 5 species	points = 1 points = 0	

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of	
points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at	
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least	
33 ft (10 m)	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	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 wet	land unit).	
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 = 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:		
18.6 % undisturbed habitat + (7.5 % moderate & low	intensity land uses / 2) = 22.35%	
		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 Ad	dd the points in the boxes above	-1

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M 2 < 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	s? 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 pl	ant	
or animal on the state or federal lists)		
It is mapped as a location for an individual WDFW priority specie	S	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 = 1	
Site does not meet any of the criteria above	points $= 0$	
Rating of ValueIf Score is: $\Box 2 = H$ $\Box 1 = M$ $\boxdot 0 = L$ Red	cord the rating on	the first page

WDFW Priority Habitats

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

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

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

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

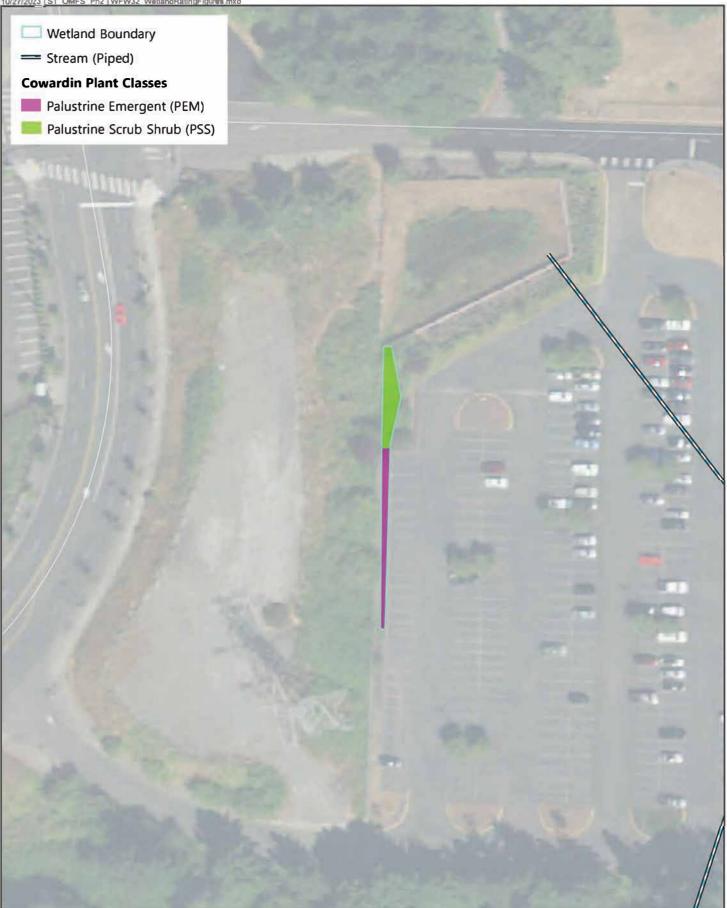
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type		Category
Chook off	any oritoria that apply to the watland List the estagony when the appropriate criteria are mat	
	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
30 1.0.		
	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	
0044	☐ 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	
	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?	
<u> </u>	✓ Yes - Go to SC 2.2	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
00.00	□ 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	
0000	☐ 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?	
00.0.0	□ 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?	
00.00	☐ 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?	
00.00	\Box Yes - Go to SC 3.3 \Box 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,	
00.04	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	

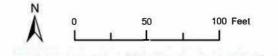
SC 4 0 1	Forested Wetlands	
00 4.0.1	Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria	
	for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer</i>	
	YES you will still need to rate the wetland based on its functions.	
	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).	
	3 (111)	
	Yes = Category I Ves = 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)	
	\square Yes - Go to SC 5.1 \square No = Not a wetland in a coastal lagoon	
C E 4 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).	
	5	
_	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	nterdunal 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	
	\square Yes - Go to SC 6.1 \square 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	
50 0.1.	(rates H,H,H or H,H,M for the three aspects of function)?	
	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 6.2}$	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
00 0.Z.	•	
0000	$\Box \text{ Yes} = \textbf{Category II} \qquad \Box \text{ No - Go to } \textbf{SC 6.3}$	
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	
0-1	☐ Yes = Category III ☐ No = Category IV	
Category of wetland based on Special Characteristics		
If you an	swered No for all types, enter "Not Applicable" on Summary Form	

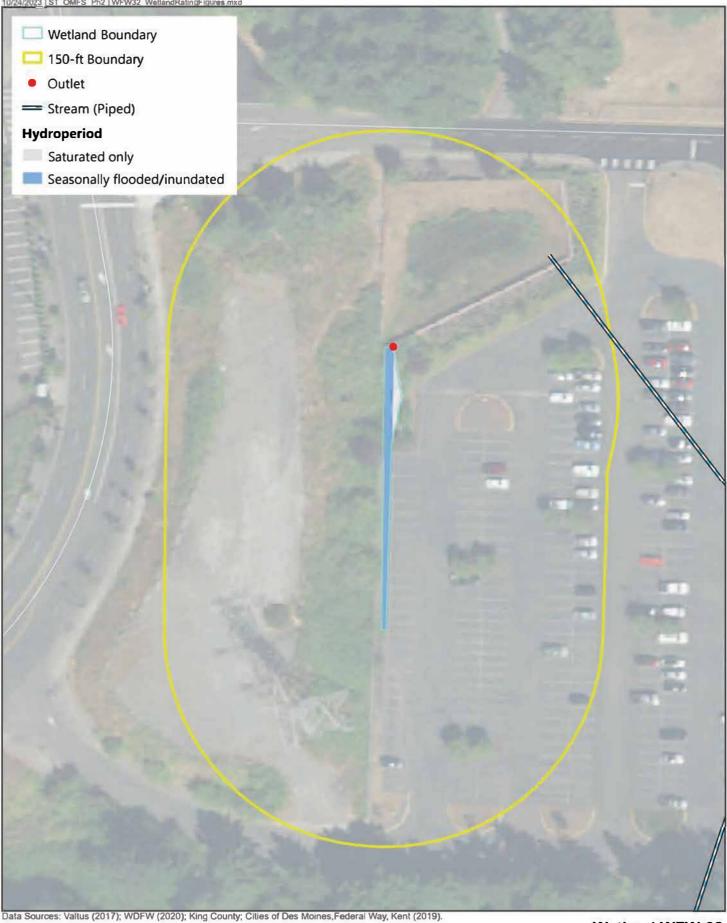




Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

Wetland WFW-32 Cowardin Plant Classes and Cover





N 50 100 Feet 1

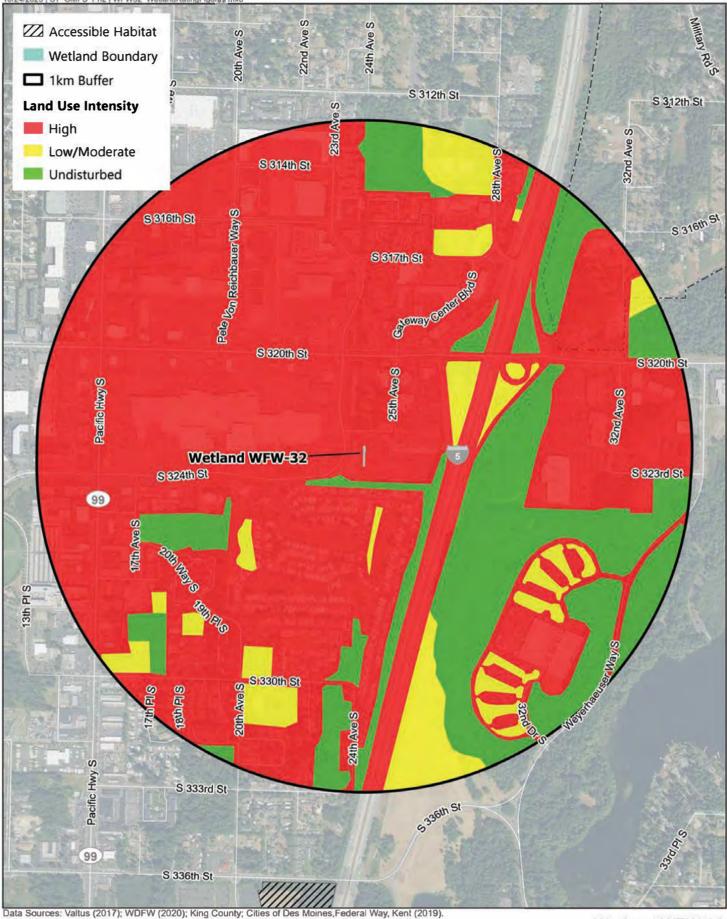
Wetland WFW-32 Hydroperiods



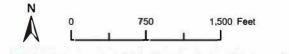
Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

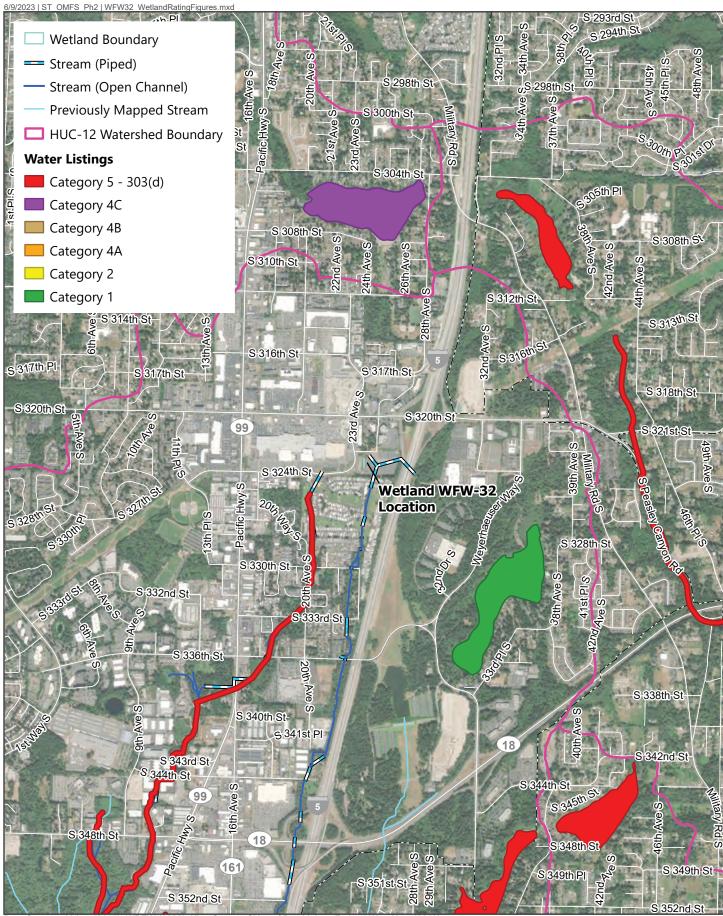
N 0 50 100 Feet

Wetland WFW-32 Contributing Basin



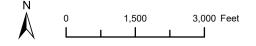
Wetland WFW-32 Land Use Intensity

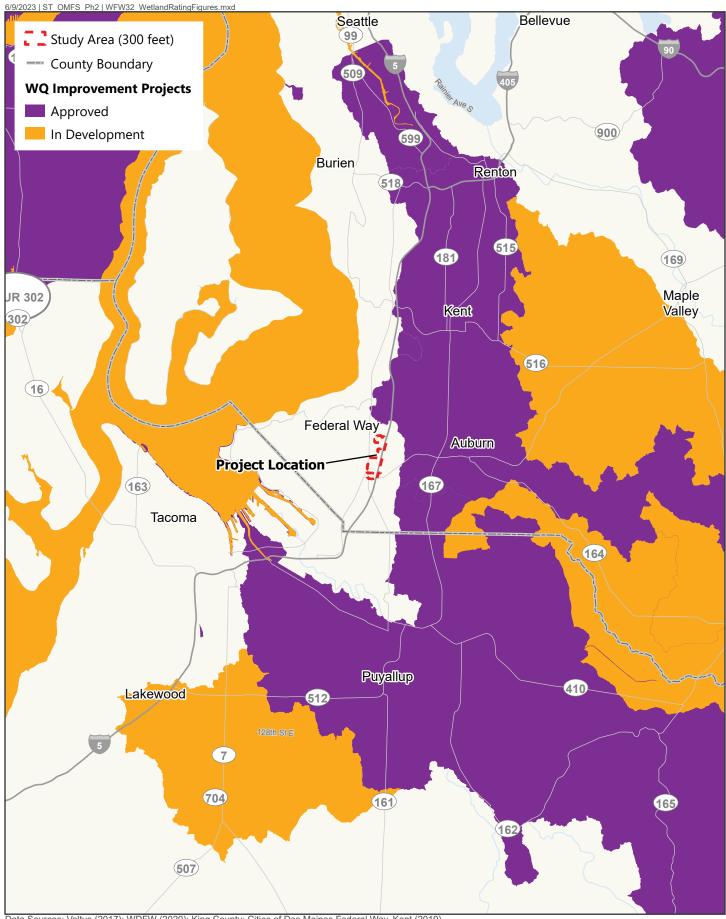




Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

Wetland WFW-32 303(d) Listed Waters





Data Sources: Valtus (2017); WDFW (2020); King County; Cities of Des Moines, Federal Way, Kent (2019).

Ν

0

2.5

5 Miles

Wetland WFW-32 Total Maximum Daily Loads (TMDL)

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): WFW-34					Date of site visit:	5/18/2023
Rated by Anna Hoe	nig, Aaron Thom	Tr	ained by E	cology? 🖸	Yes 🗌 No	Date of training	Oct-18
HGM Class used for	rating Depression	nal		Wetlar	nd has multip	ble HGM classes? 🗹	Yes 🗌 No
NOTE: Fo	rm is not complete Source of base aer					be combined).	
OVERALL WETLA				functions	⊡or specia	al characteristics \Box)	
1. Category of w	vetland based on				г		
		- Total score				Score for each	
		II - Total score				function based	
		II - Total scor				on three	
	Category	IV - Total scor	e = 9 - 15			ratings	
						(order of ratings	
FUNCTION	Improving Water Quality	Hydrologic	Habitat			is not important)	
	List app	ropriate rating	g (H, M, L)				
Site Potential	М	М	М			9 = H, H, H	
Landscape Potential	Н	Н	М			8 = H, H, M	
Value	Н	Н	Н	Total	1	7 = H, H, L	
Score Based on Ratings	8	8	7	23		7 = H, M, M 6 = H, M, L	
	ed on SPECIAL C	HARACTER		fwetland	d	6 = M, M, M 5 = H, L, L 5 = M, M, L 4 = M, L, L 3 = L, L, L	
CHARAC			Category				

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

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?
 - ☑ NO go to 2
 □ YES the wetland class is Tidal Fringe go to 1.1
 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - □ NO Saltwater Tidal Fringe (Estuarine)
 □ YES Freshwater Tidal Fringe
 If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands. If
 it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be
 used to score functions for estuarine wetlands.

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

- 3. Does the entire wetland unit meet all of the following criteria?
 - ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ✓ NO go to 4☐ YES The wetland class is Lake Fringe (Lacustrine Fringe)
- 4. Does the entire wetland unit **meet all** of the following criteria?
 - ☐ The wetland is on a slope (*slope can be very gradual*),
 - \square The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It
 - may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - \Box The water leaves the wetland **without being impounded**.
 - 🗹 NO go to 5

□ YES - The wetland class is Slope

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

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - ☑ The overbank flooding occurs at least once every 2 years.
 - \square NO go to 6

□ YES - The wetland class is **Riverine**

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

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

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:

WFW-34 has depressional and riverine HGM classes and is rated under depressional.

Water Quality Functions - Indicators that the site functions to improve water quality D 1.0. Does the site have the potential to improve water quality? D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 ✓ Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 ✓ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1 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 D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): 0 Wetland has persistent, ungrazed, plants > 95% of area points = 3 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 5 Wetland has persistent, ungrazed plants < ½ of area points = 3 5 Wetland has persistent, ungrazed plants < ¹ / ₁₀ of area points = 0 0	DEPRESSIONAL AND FLATS WETLA	NDS	
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 ✓ Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 ✓ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a points = 1 0 D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0 0 D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 3 5 Wetland has persistent, ungrazed plants > ½ of area points = 3 5 Wetland has persistent, ungrazed plants > 1/10 of area points = 1 5	Water Quality Functions - Indicators that the site functions to imp	prove water quality	
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet).points = 3Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet.points = 2Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowingpoints = 1Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.points = 1D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions).0D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):0Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed plants > $\frac{1}{10}$ of area Wetland has persistent, ungrazed plants < $\frac{1}{10}$ of area points = 15	0 1.0. Does the site have the potential to improve water quality?		
with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly points = 2 Image: Constricted permanently flowing outlet. points = 2 Image: Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing Image: the triangle in triangle in the triangle in triangle in triangle in the triangle in triangle in the triangle in the triangle in tringle in tringle in tringle in triangle in triangle in triangle i	0 1.1. Characteristics of surface water outflows from the wetland:		
Wetland has an intermittently flowing stream or ditch, OR highly points = 2 Wetland has an incermittently flowing outlet. points = 2 Wetland has an unconstricted, or slightly constricted, surface outlet points = 1 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a 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 D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): 0 Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed plants > 1/ ₁₀ of area points = 1			
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 (use NRCS definitions). Yes = 4 No = 0 D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): 0 0 Wetland has persistent, ungrazed, plants > 95% of area points = 3 5 Wetland has persistent, ungrazed plants > 1/ ₁₀ of area points = 1 5	- · · /	points = 3	
✓ 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 (use NRCS definitions). Yes = 4 No = 0 D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): 0 Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > 1/2 of area 5 Wetland has persistent, ungrazed plants > 1/4 of area points = 1 5			
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 D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): 0 Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > ½ of area points = 1 Wetland has persistent, ungrazed plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > ½ of area points = 1 Wetland has persistent, ungrazed plants > ½ of area points = 1 Wetland has persistent, ungrazed plants > 1/ ₁₀ of area points = 0		points = 2	1
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permanently flowing ditch.points = 1D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions).0D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):0Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed, plants > ½ of area Wetland has persistent, ungrazed plants > 1/10 of area5Wetland has persistent, ungrazed plants < 1/10 of area	that is permanently flowing	points = 1	
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(use NRCS definitions). Yes = 4 No = 0 0 D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > 1/2 of area points = 3 5 Wetland has persistent, ungrazed plants > 1/2 of area points = 1 5 Wetland has persistent, ungrazed plants > 1/10 of area points = 0 5	permanently flowing ditch.	points = 1	
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Wetland has persistent, ungrazed plants $< \frac{1}{10}$ of area points = 0	Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area	points = 3	5
	Wetland has persistent, ungrazed plants $> \frac{1}{10}$ of area	points = 1	
	Wetland has persistent, ungrazed plants $< \frac{1}{10}$ of area	points = 0	
This is the area that is ponded for at least 2 months. See description in manual.	This is the area that is ponded for at least 2 months. See description in	n manual.	
Area seasonally ponded is > $\frac{1}{2}$ total area of wetland points = 4 4	Area seasonally ponded is > $\frac{1}{2}$ total area of wetland	points = 4	4
Area seasonally ponded is > 1/4 total area of wetland points = 2	Area seasonally ponded is > $\frac{1}{4}$ total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland points = 0	Area seasonally ponded is $< \frac{1}{4}$ total area of wetland	points $= 0$	
Total for D 1 Add the points in the boxes above 10	Total for D 1 Add the points	in the boxes above	10

Record the rating on the first page

D 2.0. Does the landscape have the potential to support the water quality function of the site?				
Yes = 1	No = 0	1		
nat		1		
Yes = 1	No = 0	I		
Yes = 1	No = 0	0		
hat are				
		1		
Yes = 1	No = 0			
the points in the boxes	above	3		
	Yes = 1 M nat Yes = 1 M Yes = 1 M hat are Yes = 1 M	Yes = 1 No = 0 nat Yes = 1 No = 0 Yes = 1 No = 0		

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 societ	y?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,			1
lake, or marine water that is on the 303(d) list?	Yes = 1	No = 0	I
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on t	he 303(d) list	?	1
	Yes = 1	No = 0	I
D 3.3. Has the site been identified in a watershed or local plan as important fo	r		
maintaining water quality (answer YES if there is a TMDL for the basin in			0
which the unit is found)?	Yes = 2	No = 0	
Total for D 3 Add the poin	ts in the boxe	es above	2
Rating of Value If score is:	Record the	rating on	the first page

Hudrologia Eurotiona Indiactors that the site functions to reduce floading or	<u>S</u>	
Hydrologic Functions - Indicators that the site functions to reduce flooding ar	nd stream degrad	dation
0 4.0. Does the site have the potential to reduce flooding and erosion?		
0 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	0
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	nainta — 1	
permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet	points = 1	
that is permanently flowing	points = 0	
0 4.2. <u>Depth of storage during wet periods</u> : <i>Estimate the height of ponding above the</i>		
butlet. For wetlands with no outlet, measure from the surface of permanent water or i		
leepest part.	r ary, the	
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	
0 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the	ne area of	
upstream basin contributing surface water to the wetland to the area of the wetland u	nit itself.	
\Box 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	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 th	e boxes above	6
Rating of Site Potential If score is: \Box 12 - 16 = H \Box 6 - 11 = M \Box 0 - 5 = L Rec	ord the rating on t	he first pa
D 5.0. Does the landscape have the potential to support hydrologic function of the sit	e?	
	es = 1 No = 0	1
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate exc		
	cess runoff?	
		1
Ye	es = 1 No = 0	1
	es = 1 No = 0	1
Ye D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensiv uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	es = 1 No = 0	
Ye D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensiv uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Ye	es = 1 No = 0 ve human land es = 1 No = 0	
Ye D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensiv uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Ye Fotal for D 5 Add the points in th	es = 1 No = 0 ve human land es = 1 No = 0	1
Ye D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Ye Total for D 5 Add the points in the state of Landscape Potential If score is: ☑3 = H □1 or 2 = M □0 = L Rect	es = 1 No = 0 ve human land es = 1 No = 0 e boxes above	1
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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: <i>Indicators are Cowardin classes and strata within the</i> <i>Forested class.</i> 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 Aquatic bed Emergent Scrub-shrub (areas where shrubs have > 30% cover) Structures: points = 2 Scrub-shrub (areas where trees have > 30% cover) Forested (areas where trees have > 30% cover) Istructure: 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 	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 (<i>see text for descriptions of hydroperiods</i>).	
 Permanently flooded or inundated Seasonally 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 	3
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	2
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. <i>If you have four or more plant classes or three classes and open water,</i> <i>the rating is always high.</i>	1
None = 0 pointsLow = 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. 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 a	t
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 1/4 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 abov	e 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 funct	tion of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland		
Calculate:		
5 % undisturbed habitat + (1 % moderate & low inten	nsity land uses / 2) = 5.5%	
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	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate:		
50 % undisturbed habitat + (20 % moderate & low inten	nsity land uses / 2) = 60%	
		3
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)	0
≤ 50% of 1km Polygon is high intensity	points = 0	
Total for H 2 Add the	e points in the boxes above	3

Rating of Landscape Potential If Score is: 4 - 6 = H / 1 - 3 = M
 < 1 = L Record the rating on the first page

H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or polici	es? 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 provides and provides habitat for Threatened or Endangered species (any provides habitat for Threatened or Endangered species).	olant	
or animal on the state or federal lists)		
☐ It is mapped as a location for an individual WDFW priority speci	es	2
It is a Wetland of High Conservation Value as determined by the	е	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	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 Re	cord the rating on	the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- □ Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **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
	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
SC 1.0. I	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	
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?	
	$\Box \text{ Yes} = \textbf{Category I} \qquad \Box \text{ No - Go to SC 1.2}$	
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	
	Vetlands of High Conservation Value (WHCV)	
SC 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?	
	□ Yes = Category I	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	Yes - Contact WNHP/WDNR and 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	
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?	
	\Box Yes - Go to SC 3.3 \Box 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?	
	\Box Yes - Go to SC 3.3 \Box 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 1	Forested Wetlands	
30 4.0.1	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. \	Netlands 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)	
	\Box Yes - Go to SC 5.1 \Box 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).	
	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 is larger than $\frac{1}{10}$ ac (4350 ft ²)	
80.60.1	Yes = Category I No = Category II nterdunal Wetlands	
50 0.0.1		
	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	
	\Box Yes - Go to SC 6.1 \Box 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)?	
	\Box Yes = Category I \Box 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?	
	\Box Yes = Category II \Box 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	
	y of wetland based on Special Characteristics	
If you an	swered No for all types, enter "Not Applicable" on Summary Form	

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WFW-35		Date of site visit: 5/19/2023
Rated by Kaylee Moser, A. Thom	Trained by Ecology? 🗹 Yes 🗌 No	Date of training Oct-18
HGM Class used for rating Depressional	Wetland has multip	e HGM classes? □ Yes ☑No
NOTE: Form is not complete with out		be combined).
Source of base aerial photo/n		
OVERALL WETLAND CATEGORYII	(based on functions 🗹 or specia	Il characteristics \Box)
1. Category of wetland based on FUNCTI	ONS _	
Category I - Total sc	ore = 23 - 27	Score for each
X Category II - Total so	core = 20 - 22	function based
Category III - Total s	score = 16 - 19	on three
Category IV - Total s	score = 9 - 15	ratings

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	М	М	L	
Landscape Potential	М	Н	М	
Value	Н	Н	Н	Tota
Score Based on Ratings	7	8	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	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	X

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 Classifi	ication of Wetland in Western Washington
If hydrologic criteria listed in each of	cribed must apply to the entire unit being rated. question do not apply to the entire unit being rated, you probably have a unit case, identify which hydrologic criteria in questions 1 - 7 apply, and go to
1. Are the water levels in the entire	e 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 wate	r during periods of annual low flow below 0.5 ppt (parts per thousand)?
If your wetland can be cl	inge (Estuarine)
	d precipitation is the only source (>90%) of water to it. noff are NOT sources of water to the unit.
✓ NO - go to 3 If your wetland can be classical	\Box YES - The wetland class is Flats assified as a Flats wetland, use the form for Depressional wetlands.
plants on the surface at a	et all of the following criteria? e wetland is on the shores of a body of permanent open water (without any any time of the year) at least 20 ac (8 ha) in size; water area is deeper than 6.6 ft (2 m).
☑ NO - go to 4	YES - The wetland class is Lake Fringe (Lacustrine Fringe)
The water flows through It may flow subsurface, a	et all of the following criteria? e (<i>slope can be very gradual</i>), the wetland in one direction (unidirectional) and usually comes from seeps. as sheetflow, or in a swale without distinct banks. tland without being impounded.
☑ NO - go to 5	\Box YES - The wetland class is Slope
•	nd in these type of wetlands except occasionally in very small and shallow (depressions are usually <3 ft diameter and less than 1 ft deep).
from that stream or river,	stream channel, where it gets inundated by overbank flooding

☑ NO - go to 6

□ YES - The wetland class is **Riverine**

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

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

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:

WFW-35 recieves water from a stormwater pipe located at its northwest corner. No outlet was observed. Appears to a man-made feature and is possibly non-jurisdictional.

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		
constricted permanently flowing outlet.	points $= 2$	2
\Box Wetland has an unconstricted, or slightly constricted, surface outlet		
that is permanently flowing	points $= 1$	
\Box 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	
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shi	rub, and/or	
Forested Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	~
Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area	points = 3	5
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 in manual.		
Area seasonally ponded is $> \frac{1}{2}$ total area of wetland	points $= 4$	2
Area seasonally ponded is $> \frac{1}{4}$ total area of wetland	points = 2	
Area seasonally ponded is $< \frac{1}{4}$ total area of wetland	points = 0	
	n the boxes above	9
	Record the rating on th	e first pa

Rating of Site Potential If score is:
$$\Box$$
 12 - 16 = H \boxdot 6 - 11 = M \Box 0 - 5 = L Record the rating \Box

D 2.0. Does the landscape have the potential to support the wa	ater quality function of the s	ite?	
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		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 we	tland 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 boxe	s above	2

Rating of Landscape Potential If score is: 3 or 4 = H 3 or 2 = M 3

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,	1
lake, or marine water that is on the $303(d)$ list? Yes = 1 No = 0	I
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	1
Yes = 1 No = 0	I
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	
Total for D 3 Add the points in the boxes above	2
Rating of Value If score is: \Box 2 - 4 = H \Box 1 = M \Box 0 = LRecord the rating on	the first page

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degr	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	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
\checkmark 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. <u>Contribution of the wetland to storage in the watershed</u> : <i>Estimate the ratio of the area of</i>	
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.	
\Box 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	Ũ
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 4Add the points in the boxes above	8
Rating of Site Potential If score is: \Box 12 - 16 = H \Box 6 - 11 = M \Box 0 - 5 = LRecord 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	I
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: \Box 3 = H \Box 1 or 2 = M \Box 0 = L <i>Record the rating on</i>	the first page
D.C.O. Are the hydrologic functions provided by the site volucials to essist 2	
D 6.0. Are the hydrologic functions provided by the site valuable to society?	
D 6.1. <u>The unit is in a landscape that has flooding problems</u> . Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest</u>	
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best	
D 6.1. <u>The unit is in a landscape that has flooding problems</u> . Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest</u>	
D 6.1. <u>The unit is in a landscape that has flooding problems</u> . Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest</u> <u>score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow down-gradient into areas	
D 6.1. <u>The unit is in a landscape that has flooding problems</u> . Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest</u> <u>score if more than one condition is met.</u>	
D 6.1. <u>The unit is in a landscape that has flooding problems</u> . Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest</u> <u>score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):	2
 D 6.1. <u>The unit is in a landscape that has flooding problems</u>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down- 	2
 D 6.1. <u>The unit is in a landscape that has flooding problems</u>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. 	2
 D 6.1. <u>The unit is in a landscape that has flooding problems</u>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 Surface flooding problems are in a sub-basin farther down- 	2
 D 6.1. <u>The unit is in a landscape that has flooding problems</u>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 Surface flooding problems are in a sub-basin farther down-gradient. points = 1 	2
 D 6.1. <u>The unit is in a landscape that has flooding problems</u>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 	2
 D 6.1. <u>The unit is in a landscape that has flooding problems</u>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. 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 	2
 D 6.1. <u>The unit is in a landscape that has flooding problems</u>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met</u>. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. Plooding 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 There are no problems with flooding downstream of the wetland. 	2
 D 6.1. <u>The unit is in a landscape that has flooding problems</u>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. 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 	2

Total for D 6Rating of Value If score is: $\square 2 - 4 = H$ $\square 1 = M$ $\square 0 = L$

Record the rating on the first page

2

Add the points in the boxes above

These questions apply to wetlands of all HGM classes.	
ABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
1 1.0. Does the site have the potential to provide habitat?	
 H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. □ Aquatic bed 4 structures or more: points = 4 □ Emergent 3 structures: points = 2 □ Scrub-shrub (areas where shrubs have > 30% cover) 1 structure: points = 0 	1
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 1.2. 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 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 1.3. Richness of plant species 1	
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 cosestrife, Canadian thistle	1
f you counted: > 19 species points = 2 5 - 19 species points = 1 < 5 species points = 0	
A 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) s high, moderate, low, or none. <i>If you have four or more plant classes or three classes and open</i> water, the rating is always high.	
None = 0 pointsLow = 1 pointModerate = 2 points	1
All three diagrams in this row are HIGH = 3 points	

Check the l of points.	cial habitat features: habitat features that are present in the wetland. <i>The number of checks is the number</i> arge, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) bitanding snags (dbh > 4 in) within the wetland Indercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends t least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at east 33 ft (10 m) bitable 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>) tt 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>) to vasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see</i> 1.1 for list of strata)	0
Total for H	1 Add the points in the boxes above	4

Rating of Site Potential If Score is: \Box 15 - 18 = H \Box 7 - 14 = M \Box 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 we	tland unit).	
Calculate:		
5 % undisturbed habitat + (20 % moderate & low	intensity land 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:		
10 % undisturbed habitat + (25 % moderate & low	intensity land uses / 2) = 22.5%	
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) 0	
≤ 50% of 1km Polygon is high intensity	points = 0	
Total for H 2 Add	d the points in the boxes above 2	

Rating of Landscape Potential If Score is: 4 - 6 = H 2 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 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)	e)
It provides habitat for Threatened or Endangered species (and the species)	ny plant
or animal on the state or federal lists)	
□ It is mapped as a location for an individual WDFW priority sp	pecies
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 loca	lor
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: $\boxed{2} = H$ $\boxed{1} = M$ $\boxed{0} = L$	Record the rating on the first page

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

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
Chock of	f any criteria that apply to the wotland List the category when the appropriate criteria are mot	
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met. Estuarine Wetlands	
30 1.0.1	Does the wetland meet the following criteria for Estuarine wetlands?	
	U	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
00.4.4	$\Box \text{ Yes - Go to SC 1.1} \qquad \forall \text{ No} = \text{Not an estuarine wetland}$	
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 I	
SC 2.0. \	Wetlands of High Conservation Value (WHCV)	
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list	
	of Wetlands of High Conservation Value?	
	□ Yes - Go to SC 2.2	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
	$\Box Yes = Category I \qquad \qquad \forall No = Not WHCV$	
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. 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,	
00 0.1.	that compose 16 in or more of the first 32 in of the soil profile?	
	\Box Yes - Go to SC 3.3 \Box 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	
00 0.2.	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?	
	$\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No} = \text{Is not a bog}$	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground	
50 5.5.	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,	
SC 3.4.	the wetland is a bog.	
30 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 F	Forested Wetlands	
00 4.0.1	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. 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 (needs to	
	be measured near the bottom)	
	\Box Yes - Go to SC 5.1 \Box 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 $\frac{1}{10}$ ac (4350 ft ²)	
SC 6 0 1	☐ Yes = Category I No = Category II	
30 0.0.1	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	
	\Box Yes - Go to SC 6.1 \Box 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)?	
	$\Box \text{ Yes} = \textbf{Category I} \qquad \Box \text{ No - Go to } \textbf{SC 6.2}$	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
	\Box Yes = Category II \Box 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?	
	\Box Yes = Category III \Box 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 #):	WFW-36	Date of site visit:	5/19/2023
Rated by Amanda Weiss	Trained by Ecology? ☑ Yes □ No	Date of training	Oct. 2020
HGM Class used for rating	Slope Wetland has multi	ble HGM classes? \Box	Yes 🗹 No
	ot complete with out the figures requested (figures cal of base aerial photo/map_ESRI	n be combined).	
OVERALL WETLAND CA	TEGORY [based on functions ⊡ or spec	al characteristics 🗔	1
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 Category IV - Total score = 9 - 15				
FUNCTION	Improving Water Quality	Hydrologic	Habitat	
List appropriate rating (H, M, L)				
e Potential	М	1		

		, .		
Site Potential	М	L	L	
Landscape Potential	М	L	Н	
Value	Н	Н	Н	Total
Score Based on Ratings	7	5	7	19

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

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

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	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 levels in the entire unit usually controlled by tides except during floods?
 - ☑ NO go to 2
 ☑ YES the wetland class is Tidal Fringe go to 1.1
 - 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - □ NO Saltwater Tidal Fringe (Estuarine)
 □ YES Freshwater Tidal Fringe
 If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands.
 If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be used to score functions for estuarine wetlands.

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

- ✓ NO go to 3
 ✓ YES The wetland class is Flats
 If your wetland can be classified as a Flats wetland, use the form for Depressional wetlands.
- 3. Does the entire wetland unit **meet all** of the following criteria?
 - The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - \Box At least 30% of the open water area is deeper than 6.6 ft (2 m).
 - ✓ NO go to 4
 ✓ YES The wetland class is Lake Fringe (Lacustrine Fringe)
- 4. Does the entire wetland unit meet all of the following criteria?
 - ☑ The wetland is on a slope (*slope can be very gradual*),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - ☑ The water leaves the wetland **without being impounded**.
 - \square NO go to 5

✓ YES - The wetland class is Slope

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

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding
- from that stream or river,
- The overbank flooding occurs at least once every 2 years.
- \Box NO go to 6

 \Box YES - The wetland class is **Riverine**

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

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

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

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

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

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

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

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

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

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

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

Yes = 1	No = 0	0
		1
Yes = 1	No = 0	
its in the boxe	es above	1
	Yes = 1 ts in the boxe	Yes = 1 No = 0 $Yes = 1 No = 0$ $ts in the boxes above$

Rating of Landscape Potential If score is: 2 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	1
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the 303(d) list.	Yes = 1	No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? Answer YES if there is a TMDL for the basin in which the unit is found?	Yes = 2	No = 0	0
Total for S 3 Add the points			
Rating of Value If score is: 2 - 4 = H 1 = M 0 = L	Record the	rating on	the first page

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce floo	oding and stream ero	sion
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 s points appropriate for the description that best fits conditions in the wetland. Ste should be thick enough (usually > $1/8$ in), or dense enough, to remain erect during the state of the description of the description of the description.	ems of plants ring surface flows.	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: $\Box 1 = M$ $\Box 0 = L$	Record the rating on a	the first page

S 5.0. Does the landscape have the potential to support hydrologic functions of	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	Record the	rating on	the first page

Total for S 6Add the points inRating of ValueIf score is: 2 - 4 = HI = M0 = L			2 the first page
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2	No = 0	0
Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream	•	oints = 1 oints = 0	
The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds)	pc	pints = 2	2
S 6.1. Distance to the nearest areas downstream that have flooding problems:			
S 6.0. Are the hydrologic functions provided by the site valuable to society?			

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: <i>Indicators are Cowardin classes and strata within the</i> <i>Forested class</i> . 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 Aquatic bed Emergent Scrub-shrub (areas where shrubs have > 30% cover) Scrub-shrub (areas where trees have > 30% cover) Forested (areas where trees have > 30% cover) Istructure: 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 	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 (<i>see text for descriptions of</i> <i>hydroperiods</i>).	
 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 wetland2 pointsFreshwater tidal wetland2 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	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. <i>If you have four or more plant classes or three classes and open water, the rating is always high.</i>	
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 checks is the number of points.</i> □ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) □ Standing snags (dbh > 4 in) within the wetland □ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) □ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) □ 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 (<i>see H 1.1 for list of strata</i>) 	0
Total for H 1 Add the points 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 site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
20 % undisturbed habitat + (15 % moderate & low intensity land uses / 2) = 27.5%	
If total accessible habitat is:	2
$> \frac{1}{3} (33.3\%)$ 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:	
50 % undisturbed habitat + (25 % moderate & low intensity land uses / 2) = 62.5%	
	3
Undisturbed habitat > 50% of Polygon points = 3	Ũ
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)	0
\leq 50% of 1km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	5

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M

I - 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 plan	t	
or animal on the state or federal lists)		
\Box 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	
Rating of Value If Score is: 2 = H 1 = M 0 = L Record	the rating on	the first page

WDFW Priority Habitats

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

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

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- □ 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	
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.		
SC 1.0. I	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		
	\Box Yes - Go to SC 1.1 \Box No = Not an estuarine wetland		
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary		
00	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific		
	Reserve designated under WAC 332-30-151?		
	\Box Yes = Category I \Box No - Go to SC 1.2		
SC 1.2.			
	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		
	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.	5		
0000	$\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Not WHCV}$		
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. 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		
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?		
1	☐ Yes = Is a Category I bog ☐ No = Is not a bog	1	

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 (<i>needs to</i>	
be measured near the bottom)	
$\Box \text{ Yes - Go to SC 5.1} \qquad \forall \text{ No = Not a wetland in a coastal lagoon}$	
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.	
\Box The wetland is larger than $\frac{1}{10}$ 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)? <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	
Cocean Shores-Copalis: Lands west of SR 115 and SR 109	
$\Box \text{ Yes - Go to SC 6.1} \qquad \forall \text{ No = Not an interdunal wetland for rating}$	
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	
If you answered No for all types, enter "Not Applicable" on Summary Form	