## Attachment N.4C Ecology Wetlands Rating Forms

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## **RATING SUMMARY – Western Washington**

| Name of wetland (or ID #):  | Wetland WSE1   |   | Date of site visit: | 8/23/2019 |
|-----------------------------|--|---|---------------------|-----------|
| Rated by R. Whitson, A. Rot | ondo Trained by E  | cology? 🗹 Yes 🗌 No                        | Date of training    | Mar-15    |
| HGM Class used for rating   | Slope  | Wetland has multiple                      | HGM classes? □ `    | Yes 🗹 No  |
| NOTE: Form is no<br>Source  | ot complete with out the figures r<br>of base aerial photo/map <u>King Cou</u> | equested (figures can b<br>nty Pictometry | e combined ).       |           |

OVERALL WETLAND CATEGORY \_\_\_\_\_ (based on functions  $\square$  or special characteristics  $\square$  )

#### 1. Category of wetland based on FUNCTIONS

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

| FUNCTION                  | Improving<br>Water Quality | Hydrologic      | Habitat     |       |
|---------------------------|----------------------------|-----------------|-------------|-------|
|                           | List app                   | ropriate rating | ; (H, M, L) |       |
| Site Potential            | L                          | L               | L           |       |
| Landscape Potential       | М                          | М               | L           |       |
| Value                     | Н                          | L               | L           | Total |
| Score Based on<br>Ratings | 6                          | 4               | 3           | 13    |

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

| 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         | 1        |
| Hydroperiods   | H 1.2                | 1        |
| Plant cover of dense trees, shrubs, and herbaceous plants                      | S 1.3                | 1        |
| Plant cover of dense, rigid trees, shrubs, and herbaceous plants               | S 4.1                | 1        |
| (can be added to another figure )  |                      | 1        |
| Boundary of area within 150 ft of the wetland (can be added to another figure) | S 2.1, S 5.1         | 1        |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including      | H 2.1, H 2.2, H 2.3  | 2        |
| polygons for accessible habitat and undisturbed habitat                        |                      | 2        |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)  | S 3.1, S 3.2         | 3        |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web)     | S 3.3                | 4        |

## 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
  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.
  - $\ensuremath{\boxdot}$  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.* 

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□ NO - go to 7 □ YES - The wetland class is Depressional
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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 qua  | ity   |
| 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     |
| Slope is > 2% - 5% points =  | = 1   |
| Slope is greater than 5% points :  | = 0   |
| S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic  | 0     |
| (use NRCS definitions ): Yes = 3 No :  | = 0   |
| S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants:<br>Choose the points appropriate for the description that best fits the plants in the wetland. <i>Dense</i><br><i>means you have trouble seeing the soil surface (&gt;75% cover), and uncut means not grazed or</i><br><i>mowed and plants are higher than 6 in.</i> |       |
| Dense, uncut, herbaceous plants > 90% of the wetland area points =   | = 6 O |
| Dense, uncut, herbaceous plants > 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 abo  | ve 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 water quality function of the site?                                   |   |  |
|---|---|--|
| S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants? Yes = 1 No = 0 | 1 |  |
| S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?                       | 1 |  |
| Other Sources Motor vehicle exhaust 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

| S 3.0. Is the water quality improvement provided by the site valuation | able to society?               |                      |
|--|--------------------------------|----------------------|
| S 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                     | o = 0                |
| S 3.2. Is the wetland in a basin or sub-basin where water quality      | is an issue?                   | 1                    |
| At least one aquatic resource in the basin is on the 303(d) list.      | Yes = 1 No                     | o = 0                |
| 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       | e basin in                     | 2                    |
| which the unit is found?   | Yes = 2 No                     | 0 = 0                |
| Total for S 3  | Add the points in the boxes at | oove 4               |
| Rating of Value If score is: 2 - 4 = H 1 = M 0 = L                     | Record the ratir               | ng on the first page |

| SLOPE WETLANDS  |  |                |
|---|--|----------------|
| Hydrologic Functions - Indicators that the site functions to reduce floor   | oding and stream erc   | 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 spoints appropriate for the description that best fits conditions in the wetland. Sta should be thick enough (usually > $1/8$ in), or dense enough, to remain erect du Dense, uncut, <b>rigid</b> plants cover > 90% of the area of the wetland | storms: Choose the<br>ems of plants<br>ring surface flows.<br>points = 1 | 0              |
| All other conditions  | points = 0   |                |
| Rating of Site Potential If score is: 1 = M 0 = L   | Record the rating on   | the first page |

| S 5.0. Does the landscape have the potential to support hydrologic functions o | f 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:  I = M  O = 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           | 0              |
| 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   | 0              |
| Rating of Value If score is: 2 - 4 = H 1 = M 2 0 = L   | Record the rating on | the first page |

NOTES and FIELD OBSERVATIONS:

| These questions apply to wetlands of all HGM classes.  |   |  |
|--|---|--|
| HABITAT FUNCTIONS - Indicators that site functions to provide important habitat  |   |  |
| H 1.0. Does the site have the potential to provide habitat?  |   |  |
| H 1.1. Structure of plant community: <i>Indicators are Cowardin classes and strata within the Forested class</i> . Check the Cowardin plant classes in the wetland. <i>Up to 10 patches may be combined for each class to meet the threshold of 1/4 ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.</i>  |   |  |
| <ul> <li>Aquatic bed</li> <li>Emergent</li> <li>Scrub-shrub (areas where shrubs have &gt; 30% cover)</li> <li>Forested (areas where trees have &gt; 30% cover)</li> <li>Istructure: points = 0</li> <li>If the unit has a Forested class, check if:</li> <li>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</li> </ul>                                       | 0 |  |
| H 1.2. Hydroperiods<br>Check the types of water regimes (hydroperiods) present within the wetland. The water regime<br>has to cover more than 10% of the wetland or ¼ ac to count ( <i>see text for descriptions of</i><br><i>hydroperiods</i> ).  |   |  |
| <ul> <li>Permanently flooded or inundated</li> <li>Seasonally flooded or inundated</li> <li>Seasonally flooded or inundated</li> <li>Occasionally flooded or inundated</li> <li>Saturated only</li> <li>Permanently flowing stream or river in, or adjacent to, the wetland</li> <li>Seasonally flowing stream in, or adjacent to, the wetland</li> </ul>  | 0 |  |
| <ul> <li>Lake Fringe wetland</li> <li>Freshwater tidal wetland</li> <li>2 points</li> </ul>  |   |  |
| H 1.3. Richness of plant species<br>Count the number of plant species in the wetland that cover at least 10 ft <sup>2</sup> .<br>Different patches of the same species can be combined to meet the size threshold and you do not<br>have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple<br>loosestrife, Canadian thistle<br>If you counted: > 19 species points = 2<br>5 - 19 species points = 1<br>< 5 species points = 0         | 1 |  |
| H 1.4. Interspersion of habitats<br>Decide from the diagrams below whether interspersion among Cowardin plants classes<br>(described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is<br>high, moderate, low, or none. <i>If you have four or more plant classes or three classes and open</i><br><i>water, the rating is always high.</i><br>None = 0 points<br>Low = 1 point<br>Moderate = 2 points<br>All three diagrams | 0 |  |
| 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.   |   |
| $\Box$ 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) <b>and/or</b> overhanging plants extends   |   |
| at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at         |   |
| least 33 ft (10 m)  | 0 |
| □ Stable steep banks of fine material that might be used by beaver or muskrat for denning         |   |
| (> 30 degree slope) OR signs of recent beaver activity are present ( <i>cut shrubs or trees</i>   |   |
| that have not yet weathered where wood is exposed)  |   |
| □ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas          |   |
| that are permanently or seasonally inundated (structures for egg-laying by amphibians)            |   |
| □ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see         |   |
| H 1.1 for list of strata)   |   |
| Total for H 1 Add the points in the boxes above   | 1 |

Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 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 | e site?           |    |
|---|-------------------|----|
| H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).   |                   |    |
| Calculate:  |                   |    |
| 0 % undisturbed habitat + ( 0 % moderate & low intensity land u                     | ses / 2 ) = 0%    |    |
|   |                   |    |
| If total accessible habitat is:   |                   | 0  |
| > <sup>1</sup> / <sub>3</sub> (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:  |                   |    |
| 0 % undisturbed habitat + ( 8.5 % moderate & low intensity land u                   | ses / 2 ) = 4.25% |    |
|   |                   | 0  |
| 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)     | -2 |
| ≤ 50% of 1km Polygon is high intensity  | points = 0        |    |
| Total for H 2 Add the points in   | the boxes above   | -2 |

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 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  |               | 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 Value       If Score is:       Image: 2 = H       Image: 1 = M       Image: 0 = L       Record is | 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 Categ |  |   |
|--------------------|--|---|
|                    |  |   |
| Check of           | any criteria that apply to the wetland. List the category when the appropriate criteria are met.                               |   |
| 50 1.0.1           | Estuarine wetlands   |   |
|                    | The dominant water regime is tidal   |   |
|                    | Vegeteted and  |   |
|                    | With a solinity greater than 0.5 ppt   |   |
|                    | $\Box  \text{Vec}  \Box  \nabla c = \mathbf{N} \mathbf{C} \mathbf{C} \mathbf{C} \mathbf{C} \mathbf{C} \mathbf{C} \mathbf{C} C$ |   |
| 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 <sup>3</sup> / <sub>4</sub> 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. \          | Netlands of High Conservation Value (WHCV)   |   |
| SC 2.1.            | Has the WA Department of Natural Resources updated their website to include the list   |   |
|                    | of Wetlands of High Conservation Value?  |   |
|                    |  |   |
| SC 2.2.            | Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?  |   |
| 00.00              | $\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Not WHCV}$  |   |
| 56 2.3.            | is the welland in a Section/Township/Range that contains a Natural Heritage welland?   |   |
|                    | <u>Intp://www.i.dnr.wa.gov/inp/reidesk/datasearch/winipwettands.pdi</u>  |   |
| 80.24              | Has WDNP identified the wetland within the S/T/P as a Wetland of High Conservation   |   |
| 30 2.4.            | Value and listed it on their website?  |   |
|                    | Value and instead it on their website $\Box$ Ves = Category I $\Box$ No = Not WHCV   |   |
| SC 3.0             |  |   |
| 00 0.0.1           | Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation                                     |   |
|                    | in bogs? Use the key below. If you answer YES you will still need to rate the  |   |
|                    | wetland based on its functions   |   |
| SC 3.1.            | Does an area within the wetland unit have organic soil horizons, either peats or mucks,  |   |
|                    | that compose 16 in or more of the first 32 in of the soil profile?   |   |
|                    | □ Yes - Go to SC 3.3 □ No - Go to SC 3.2   |   |
| SC 3.2.            | Does an area within the wetland unit have organic soils, either peats or mucks, that are                                       |   |
|                    | less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic  |   |
|                    | ash, or that are floating on top of a lake or pond?  |   |
|                    | □ Yes - Go to SC 3.3   |   |
| 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  |   |
|                    | <b>NOTE</b> : If you are uncertain about the extent of mosses in the understory, you may                                       |   |
|                    | substitute that criterion by measuring the pH of the water that seeps into a hole dug at                                       |   |
|                    | least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,                                     |   |
|                    | the wetland is a bog.  |   |
| SC 3.4.            | SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,                                |   |
|                    | western red cedar, western nemiock, 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                  | $\Box$ Yes = is a Category I bog $\Box$ No = 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 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 cancpy 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 QR 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 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 - Co to SC 5.1       No = Not a wetland in a coastal lagoon?         The wetland is larger than $\frac{1}{10}$ as (4350 ft <sup>2</sup> )         The lagoon in which the wetland has a 100 ft buffer of shrub, forest, or ungrazed, and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least ½ of the landward edge of the  | SC 4.0.   | Forested Wetlands   |  |
|--|-----------|---|--|
| 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 (§1 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 1       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 brackink (>0.5 pt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         □ Yes - Go to SC 5.1       □ No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         A I teast % of the 1889 line (also calied the Westem Boundary of Upland Ownership or WBUO?)? If you ans   |           | Does the wetland have at least 1 contiguous acre of forest that meets one of these                                    |  |
| 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 100 years of age OR have a diameter at breast height (dbh) of 32 in (d1 cm) or more.         Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years of 0.0 R 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 legoon 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 be measured near the bottom</i> )         Yes - Go to SC 5.1       IN No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland is relatively undisturbed (has no diking, ditching, filling, cuttivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least ½ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )         Yes = Category I       No = Category I <t< th=""><th></th><th>criteria for the WA Department of Fish and Wildlife's forests as priority babitats? If you</th><th></th></t<>  |           | criteria for the WA Department of Fish and Wildlife's forests as priority babitats? If you                            |  |
| <ul> <li>Dide 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 are species, forming a multi-layered canopy with occasional small openings; with at least 8 trees are species, (20 trees/hai) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.</li> <li>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).</li> <li>Yes = Category I □ No = Not a forested wetland for this section</li> <li>SC 5.0. Wetlands in Coastal Lagoons</li> <li>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</li> <li>The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)</li> <li>Yes - Go to SC 5.1 □ No = Not a wetland in a coastal lagoon</li> <li>SC 5.1. Does the wetland meet all of the following three conditions?</li> <li>The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least 3<sup>1</sup>/<sub>4</sub> of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than 1<sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>Yes = Category I □ No = Category II</li> <li>SC 6.0. Interdunal Wetlands</li> <li>Is the wetland set of fts 180 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you</li></ul>   |           | answar VES you will still nood to rate the wetland based on its functions   |  |
| Consignment for say (with or cascional 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 wetland meet all of the following triteria of a wetland in a coastal lagoon (needs to be measured near the bottom)         Yes - Go to SC 5.1       IN No = 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 10% to experiments with the second of the particip, filing, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least 3/c of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         The wetland is larger than 1/10 ac (4350 ft <sup>2</sup> )       No = Category I         Yes = Category I       No = Cate   |           | <b>Old_growth forests</b> (west of Cascade crest): Stands of at least two tree species                                |  |
| <pre>tothing a inducesplete dateby with occasional shall optimize the interest to terestate<br/>(20 trees/ha) that are at least 200 years of age OR have a diameter at threast height<br/>(dbh) of 32 in (81 cm) or more.</pre>  |           | forming a multi lovered concerv with accessional small enoninge: with at least 9 trees/ac                             |  |
| (2b) field cm) or more.         Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old QR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).         Yes = Category I       No = Not a forested wetland for this section         SC 5.0. Wetlands in Coastal Lagoons       Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         Yes - Go to SC 5.1       No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       The wetland is relatively undisturbed (has no diking, dikching, filling, cutivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least ½ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )         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   |           | (20 trace/bc) that are at least 200 years of are OD have a diameter at breast bright                                  |  |
| Identify of a set of the Cascade Crest): Stands where the largest trees are 80-200 years old QR 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) <ul> <li>Yes - Go to SC 5.1</li> <li>No = Not a wetland in a coastal lagoon</li> </ul> SC 5.1. Does the wetland meet all of the following three conditions? <ul> <li>Yes - Go to SC 5.1</li> <li>No = Not a wetland in a coastal lagoon</li> </ul> SC 5.1. Does the wetland meet all of the following three conditions? <ul> <li>The wetland is larger than '/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>Yes = Category I</li> <li>No = Category II</li> </ul> SC 6.0. Interdunal Wetlands         Is coaled the Western Boundary of Upland Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i> <ul> <li>In practical terms that mean</li></ul>  |           | (20 trees/fia) that are at least 200 years of age OR have a diameter at breast height                                 |  |
| <ul> <li>Mature forests (west of the Cascade Cresh), sciands where the largest rises are 60-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).</li> <li>Yes = Category 1 ○ No = Not a forested wetland for this section</li> <li>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 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 (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li></ul>  |           | (dbh) of 32 in (61 cm) of more.   |  |
| years ond over the species that make up the candop have an average dualiteter (doft)         exceeding 21 in (53 cm).  |           | wature forests (west of the Cascade Crest). Stands where the largest frees are ou- 200                                |  |
| ■ 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 be measured near the bottom</i> )         □ Yes - Go to SC 5.1       ⊡ No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         □ The wetland is larger than 1/10 ac (4350 ft <sup>2</sup> )         ■ Yes - Go to SC 6.1       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 103       Grayland-Westport: Lands west of SR 103         □ Grayland-Westport: Lands west of SR 105       Ocean Shores-Copalis: Lands west of SR 105 and SR 109 <th></th> <th>years ou OR the species that make up the carlopy have an average diameter (dbh)</th> <th></th>  |           | years ou OR the species that make up the carlopy have an average diameter (dbh)                                       |  |
| □ 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 be measured near the bottom</i> )         □ Yes - Go to SC 5.1       □ No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       □         □ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         □ At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         □ The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )         □ 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 115 and SR 109         □ Yes = Category  |           | exceeding 2 mil (55 cm).  |  |
| SC 5.0. Wetlands in Coastal Lagoons       Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         □       The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         □       The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         □       Yes - Go to SC 5.1       No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         □       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:       Dog Beach Peninsula: Lands west of SR 103         □       Yes = Cot os C 6 1       No = Not a ninterdunal 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   |           | $\Box$ Yes = Category I $\Box$ No = Not a forested wetland for this section   |  |
| <ul> <li>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</li> <li>The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 pt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>) <ul> <li>Yes - Go to SC 5.1</li> <li>No = Not a wetland in a coastal lagoon</li> </ul> </li> <li>SC 5.1. Does the wetland meet all of the following three conditions?</li> <li>The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least 3⁄4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>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 based on its habitat functions</i>. In practical terms that means the following geographic areas:</li> <li>Long Beach Peninsula: Lands west of SR 103</li> <li>Grayland-Westport: Lands west of SR 103</li> <li>Grayland-Westport: Lands west of SR 115 and SR 109</li> <li>Yes = Category I</li> <li>No - Go to SC 6.2</li> <li>SC 6.2. 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)?</li> <li>Yes = Category I</li> <li>No - Go to SC 6.2</li> <li>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?</li> <li>Yes = Category II</li> <li>No - Go to SC 6.3</li> </ul>   | SC 5.0.   | Wetlands in Coastal Lagoons   |  |
| <ul> <li>□ The welland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>□ The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)         <ul> <li>□ Yes - Go to SC 5.1</li> <li>□ No = Not a wetland in a coastal lagoon</li> </ul> <ul> <li>SC 5.1. Does the wetland meet all of the following three conditions?</li> <li>□ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>□ At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>□ The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>□ Yes = Category I</li> <li>□ No = Category II</li> </ul> <ul> <li>St he 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 based on its habitat functions.</i> <ul> <li>In practical terms that means the following geographic areas:</li> <li>□ Long Beach Peninsula: Lands west of SR 103</li> <li>□ Grayland-Westport: Lands west of SR 105</li> <li>□ Ocean Shores-Copalis: Lands west of SR 115 and SR 109</li> <li>□ Yes = Category I</li> <li>□ No - Go to SC 6.2</li> </ul> <ul> <li>St he 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)?</li> <li>□ Yes = Category II</li> <l< td=""><th></th><td>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</td><td></td></l<></ul></li></ul></li></ul>  |           | Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?                                 |  |
| <ul> <li>separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>) <ul> <li>Yes - Go to SC 5.1</li> <li>No = Not a wetland in a coastal lagoon</li> </ul> </li> <li>SC 5.1. Does the wetland meet all of the following three conditions?</li> <li>The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>Yes = Category I</li> <li>No = Category II</li> </ul> SC 6.0. Interdunal Wetlands <ul> <li>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 based on its habitat functions</i>.</li> <li>In practical terms that means the following geographic areas:</li> <li>Long Beach Peninsula: Lands west of SR 103</li> <li>Grayland-Westport: Lands west of SR 105</li> <li>Ocean Shores-Copalis: Lands west of SR 115 and SR 109</li> <li>Yes - Go to SC 6.1</li> <li>No = Not an interdunal wetland for rating</li> <li>SC 6.2. 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 wetlands that is 1 ac or larger?</li> <li>Yes = Category I</li> <li>No - Go to SC 6.2</li> <li>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, or is it in a mosaic of wetlands that is between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac, or is it</li></ul> |           | The wetland lies in a depression adjacent to marine waters that is wholly or partially                                |  |
| <ul> <li>bop and be not number factor of y databasine, giver banks, stringle, bi, lose inspectively, i rocks</li> <li>The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>Yes - Go to SC 5.1  No = Not a wetland in a coastal lagoon</li> <li>SC 5.1. Does the wetland meet all of the following three conditions?</li> <li>The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least ½ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>Yes = Category I No = Category II</li> <li>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 Ocean Shores-Copalis: Lands west of SR 103 Ocean Shores-Copalis: Lands west of SR 104 Ocean Shores-Copalis: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 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 I 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 II No - Category IV </li> </ul>   |           | senarated from marine waters by sandbanks, gravel banks, shingle, or less frequently                                  |  |
| <ul> <li>The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>) <ul> <li>Yes - Go to SC 5.1</li> <li>No = Not a wetland in a coastal lagoon</li> </ul> </li> <li>SC 5.1. Does the wetland meet all of the following three conditions? <ul> <li>The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>Yes = Category I</li> <li>No = Category II</li> </ul> </li> <li>SC 6.0. Interdunal Wetlands <ul> <li>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.</li> <li>In practical terms that means the following geographic areas:</li> <li>Long Beach Peninsula: Lands west of SR 105</li> <li>Ocean Shores-Copalis: Lands west of SR 105</li> <li>Ocean Shores-Copalis: Lands west of SR 115 and SR 109 <ul> <li>Yes - Go to SC 6.1</li> <li>No = Not an interdunal wetland for rating</li> </ul> </li> <li>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? <ul> <li>Yes = Category II</li> <li>No - Go to SC 6.2</li> </ul> </li> <li>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? <ul> <li>Yes = Category III</li> <li>No = Category IV</li> </ul> </li> </ul></li></ul>  |           | rocks   |  |
| brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon ( <i>needs to be measured near the bottom</i> )   |           | The ladoon in which the wetland is located contains ponded water that is saline or                                    |  |
| be measured near the bottom)<br>□ Yes - Go to SC 5.1 ○ No = Not a wetland in a coastal lagoon<br>SC 5.1. Does the wetland meet all of the following three conditions?<br>□ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),<br>and has less than 20% cover of aggressive, opportunistic plant species (see list of<br>species on p. 100).<br>□ At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-<br>grazed or un-mowed grassland.<br>□ The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )<br>□ Yes = Category I ○ No = Category II<br>SC 6.0. Interdunal Wetlands<br>Is the wetland west of the 1889 line (also called the Western Boundary of Upland<br>Ownership or WBUO)? If you answer yes you will still need to rate the wetland<br>based on its habitat functions.<br>In practical terms that means the following geographic areas:<br>Long Beach Peninsula: Lands west of SR 103<br>Grayland-Westport: Lands west of SR 115 and SR 109<br>□ Yes - Go to SC 6.1 ○ No = Not an interdunal wetland for rating<br>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form<br>(rates H,H,H or H,H,M for the three aspects of function)?<br>□ Yes = Category II ○ No - Go to SC 6.2<br>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?<br>□ Yes = Category II ○ No - Go to SC 6.3<br>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<br>1 ac?<br>□ Yes = Category II ○ No = Category IV<br>Category of wetland based on Special Characteristics<br>If you answered No for all types, enter "Not Applicable" on Summary Form   |           | brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to                            |  |
| <ul> <li>Yes - Go to SC 5.1  No = Not a wetland in a coastal lagoon</li> <li>SC 5.1. Does the wetland meet all of the following three conditions?</li> <li>The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>Yes = Category I No = Category II</li> <li>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 103 Grayland-Westport: 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 6.3. 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 II No = Category IV No = Category IV Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form</li></ul>  |           | be measured near the bottom)  |  |
| <ul> <li>SC 5.1. Does the wetland meet all of the following three conditions?</li> <li>The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>Yes = Category I</li> <li>No = Category II</li> <li>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 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 6.3. 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 </li> </ul>  |           | $\Box$ Yes - Go to SC 5.1 $\Box$ No = Not a wetland in a coastal lagoon   |  |
| <ul> <li>The wetland is relatively undisturbed (has no diking, ditching, filling, cuttivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)         <ul> <li>Yes = Category I</li> <li>No = Category II</li> <li>Sc 6.0. Interdunal Wetlands</li></ul></li></ul>   | SC 5.1.   | 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 ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-<br>grazed or un-mowed grassland. The wetland is larger than 1/ <sub>10</sub> ac (4350 ft <sup>2</sup> ) <u>Ves = Category I</u> 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 based on its habitat functions.</i> 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 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 II No - Category IV Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form  |           | The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing).                       |  |
| <ul> <li>species on p. 100).</li> <li>At least <sup>3</sup>⁄<sub>4</sub> of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>Yes = Category I</li> <li>No = Category II</li> </ul> SC 6.0. Interdunal Wetlands <ul> <li>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 based on its habitat functions.</i></li> <li>In practical terms that means the following geographic areas:</li> <li>Long Beach Peninsula: Lands west of SR 103</li> <li>Grayland-Westport: Lands west of SR 105</li> <li>Ocean Shores-Copalis: Lands west of SR 115 and SR 109</li> <li>Yes - Go to SC 6.1</li> <li>No = Not an interdunal wetland for rating</li> <li>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)?</li> <li>Yes = Category I</li> <li>No - Go to SC 6.2</li> <li>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?</li> <li>Yes = Category III</li> <li>No = Category IV</li> </ul> Category of wetland based on Special Characteristics ff you answered No for all types, enter "Not Applicable" on Summary Form  |           | and has less than 20% cover of aggressive, opportunistic plant species (see list of                                   |  |
| <ul> <li>At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>) <ul> <li>Yes = Category I</li> <li>No = Category II</li> </ul> </li> <li>SC 6.0. Interdunal Wetlands <ul> <li>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 based on its habitat functions.</i></li> <li>In practical terms that means the following geographic areas:</li> <li>Long Beach Peninsula: Lands west of SR 103</li> <li>Grayland-Westport: Lands west of SR 105</li> <li>Ocean Shores-Copalis: Lands west of SR 115 and SR 109</li> <li>Yes - Go to SC 6.1</li> <li>No = Not an interdunal wetland for rating</li> <li>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)?</li> <li>Yes = Category I</li> <li>No - Go to SC 6.2</li> <li>SC 6.3. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</li> <li>Yes = Category II</li> <li>No - Go to SC 6.3</li> <li>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?</li> <li>Yes = Category III</li> <li>No = Category IV</li> </ul> </li> <li>Category of wetland based on Special Characteristics <ul> <li>f you answered No for all types, enter "Not Applicable" on Summary Form</li> </ul> </li> </ul>   |           | species on p. 100).   |  |
| grazed or un-mowed grassland.<br>The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )<br><u>Yes = Category I</u> <u>No = Category II</u><br>SC 6.0. Interdunal Wetlands<br>Is the wetland west of the 1889 line (also called the Western Boundary of Upland<br>Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland</i><br><i>based on its habitat functions.</i><br>In practical terms that means the following geographic areas:<br>Long Beach Peninsula: Lands west of SR 103<br>Grayland-Westport: Lands west of SR 115 and SR 109<br><u>Yes - Go to SC 6.1</u> <u>No = Not an interdunal wetland for rating</u><br>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form<br>(rates H,H,H or H,H,M for the three aspects of function)?<br><u>Yes = Category I</u> No - Go to SC 6.2<br>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?<br><u>Yes = Category II</u> No - Go to SC 6.3<br>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?<br><u>Yes = Category II</u> No = Category IV<br>Category of wetland based on Special Characteristics<br>If you answered No for all types, enter "Not Applicable" on Summary Form   |           | At least <sup>3</sup> / <sub>4</sub> of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un- |  |
| <ul> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)         <ul> <li>Yes = Category I</li> <li>No = Category II</li> </ul> </li> <li>SC 6.0. Interdunal Wetlands             <ul> <li>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 based on its habitat functions.</i></li></ul></li></ul>  |           | grazed or un-mowed grassland.   |  |
| □ Yes = Category I       □ No = Category II         SC 6.0. Interdunal Wetlands       Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions.         In practical terms that means the following geographic areas:       □ Long Beach Peninsula: Lands west of SR 103         □ Grayland-Westport: Lands west of SR 105       □ Ocean Shores-Copalis: Lands west of SR 115 and SR 109         □ Yes - Go to SC 6.1       ☑ No = Not an interdunal wetland for rating         SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?       □ 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       □   |           | The wetland is larger than $\frac{1}{10}$ ac (4350 ft <sup>2</sup> )  |  |
| 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       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)?         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   |           | $\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Category I}$                                     |  |
| Is the wetland west of the 1889 line (also called the Western Boundary of Upland<br>Ownership or WBUO)? If you answer yes you will still need to rate the wetland<br>based on its habitat functions.<br>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<br>(rates H,H,H or H,H,M for the three aspects of function)?         Urges = 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<br>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   | SC 6.0.   | Interdunal Wetlands   |  |
| Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i><br>In practical terms that means the following geographic areas:<br>Long Beach Peninsula: Lands west of SR 103<br>Grayland-Westport: Lands west of SR 105<br>Ocean Shores-Copalis: Lands west of SR 115 and SR 109<br>Yes - Go to SC 6.1 No = Not an interdunal wetland for rating<br>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form<br>(rates H,H,H or H,H,M for the three aspects of function)?<br>Yes = Category I No - Go to SC 6.2<br>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?<br>Yes = Category II No - Go to SC 6.3<br>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<br>1 ac?<br>Yes = Category II No = Category IV<br>Category of wetland based on Special Characteristics<br>If you answered No for all types, enter "Not Applicable" on Summary Form  |           | Is the wetland west of the 1889 line (also called the Western Boundary of Upland                                      |  |
| based on its habitat functions.         In practical terms that means the following geographic areas:         □       Long Beach Peninsula: Lands west of SR 103         □       Grayland-Westport: Lands west of SR 105         □       Ocean Shores-Copalis: Lands west of SR 115 and SR 109         □       Yes - Go to SC 6.1       ☑ No = Not an interdunal wetland for rating         SC 6.1.       Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?       □         □       Yes = Category I       □       No - Go to SC 6.2         SC 6.2.       Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?       □       Yes = Category II       □       No - Go to SC 6.3         SC 6.3.       Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?       □       Yes = Category III       □       No = Category IV         Category of wetland based on Special Characteristics         If you answered No for all types, enter "Not Applicable" on Summary Form   |           | Ownership or WBUO)? If you answer yes you will still need to rate the wetland   |  |
| In practical terms that means the following geographic areas:<br>Long Beach Peninsula: Lands west of SR 103<br>Grayland-Westport: Lands west of SR 105<br>Ocean Shores-Copalis: Lands west of SR 115 and SR 109<br>Yes - Go to SC 6.1 No = Not an interdunal wetland for rating<br>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form<br>(rates H,H,H or H,H,M for the three aspects of function)?<br>Yes = Category I No - Go to SC 6.2<br>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?<br>Yes = Category I No - Go to SC 6.3<br>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<br>1 ac?<br>Yes = Category II No = Category IV<br>Category of wetland based on Special Characteristics<br>If you answered No for all types, enter "Not Applicable" on Summary Form   |           | based on its habitat functions.   |  |
| <ul> <li>Long Beach Peninsula: Lands west of SR 103</li> <li>Grayland-Westport: Lands west of SR 105</li> <li>Ocean Shores-Copalis: Lands west of SR 115 and SR 109</li> <li>Yes - Go to SC 6.1  No = Not an interdunal wetland for rating</li> <li>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)?</li> <li>Yes = Category I  No - Go to SC 6.2</li> <li>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</li> <li>Yes = Category II  No - Go to SC 6.3</li> <li>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?</li> <li>Yes = Category III  No = Category IV</li> </ul> Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form  |           | In practical terms that means the following geographic areas:   |  |
| <ul> <li>Grayland-Westport: Lands west of SR 105</li> <li>Ocean Shores-Copalis: Lands west of SR 115 and SR 109         <ul> <li>Yes - Go to SC 6.1</li> <li>No = Not an interdunal wetland for rating</li> </ul> </li> <li>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)?             <ul> <li>Yes = Category I</li> <li>No - Go to SC 6.2</li> <li>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?                     <ul> <li>Yes = Category II</li> <li>No - Go to SC 6.3</li></ul></li></ul></li></ul>   |           | Long Beach Peninsula: Lands west of SR 103  |  |
| <ul> <li>Ocean Shores-Copalis: Lands west of SR 115 and SR 109         <ul> <li>Yes - Go to SC 6.1</li> <li>No = Not an interdunal wetland for rating</li> </ul> </li> <li>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)?             <ul> <li>Yes = Category I</li> <li>No - Go to SC 6.2</li> </ul> <ul> <li>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</li> <ul> <li>Yes = Category II</li> <li>No - Go to SC 6.3</li> <li>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?</li> <li>Yes = Category III</li> <li>No = Category IV</li> </ul> </ul></li> </ul> <li>Category of wetland based on Special Characteristics         <ul> <li>If you answered No for all types, enter "Not Applicable" on Summary Form</li> </ul> </li>  |           | Gravland-Westport: Lands west of SR 105   |  |
| <ul> <li>Yes - Go to SC 6.1 ☑ No = Not an interdunal wetland for rating</li> <li>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)?</li> <li>Yes = Category I</li> <li>No - Go to SC 6.2</li> <li>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</li> <li>Yes = Category II</li> <li>No - Go to SC 6.3</li> <li>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?</li> <li>Yes = Category III</li> <li>No = Category IV</li> </ul> Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form   |           | Ocean Shores-Copalis: Lands west of SR 115 and SR 109   |  |
| 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)? <ul> <li>□ Yes = Category I</li> <li>□ No - Go to SC 6.2</li> </ul> SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? <ul> <li>□ Yes = Category II</li> <li>□ No - Go to SC 6.3</li> </ul> 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? <ul> <li>□ Yes = Category III</li> <li>□ No = Category IV</li> </ul> Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form  |           | $\Box$ Yes - Go to SC 6.1 $\Box$ No = Not an interdunal wetland for rating  |  |
| <pre>(rates H,H,H or H,H,M for the three aspects of function)?</pre>   | SC 6.1.   | Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form                              |  |
| □ 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 II       □ No = Category IV         Category of wetland based on Special Characteristics         If you answered No for all types, enter "Not Applicable" on Summary Form   |           | (rates H,H,H or H,H,M for the three aspects of function)?   |  |
| 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   |           | □ Yes = Category I □ No - Go to SC 6.2  |  |
| □ Yes = Category II       □ No - Go to SC 6.3         SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?       □ Yes = Category III       □ No = Category IV         Category of wetland based on Special Characteristics         If you answered No for all types, enter "Not Applicable" on Summary Form   | SC 6.2.   | Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?                               |  |
| 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<br>1 ac?<br>Ves = Category III No = Category IV<br>Category of wetland based on Special Characteristics<br>If you answered No for all types, enter "Not Applicable" on Summary Form   |           | □ Yes = Category II □ No - Go to SC 6.3   |  |
| 1 ac?<br>Yes = Category III No = Category IV<br>Category of wetland based on Special Characteristics<br>If you answered No for all types, enter "Not Applicable" on Summary Form   | 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                            |  |
| Yes = Category III       No = Category IV         Category of wetland based on Special Characteristics         If you answered No for all types, enter "Not Applicable" on Summary Form  |           | 1 ac?   |  |
| Category of wetland based on Special Characteristics<br>If you answered No for all types, enter "Not Applicable" on Summary Form   |           | Yes = Category III □ No = Category IV   |  |
| If you answered No for all types, enter "Not Applicable" on Summary Form   | Catego    | ry of wetland based on Special Characteristics  |  |
|  | If you ar | nswered No for all types, enter "Not Applicable" on Summary Form  |  |



150-foot buffer

Note: There is no cover of dense and/or rigid trees, shrubs, and herbaceous plants.

The wetland boundary is approximate based on visual observation. It has not been delineated or surveyed.



9/30/2019 QUESTIONS H1.1, H1.2, H1.4, S1.3, S2.1, S4.1, S5.1







## **RATING SUMMARY – Western Washington**

| Name of wetland (or ID #):   | Wetland WSE2   | Date of site visit: | 8/23/2019 |
|--|--|---------------------|-----------|
| Rated by R. Whitson, A. Rot  | ondo Trained by Ecology? ☑ Yes □ No  | Date of training    | Mar-15    |
| HGM Class used for rating Riverine & Fresh Water Tidal Wetland has multiple HGM classes?  Ves  Ves  No |  |                     |           |
| NOTE: Form is no<br>Source   | of complete with out the figures requested (figures can<br>of base aerial photo/map King County Pictometry | be combined ).      |           |

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<br>Water Quality | Hydrologic      | Habitat     |       |
|---------------------------|----------------------------|-----------------|-------------|-------|
|                           | List app                   | ropriate rating | ; (H, M, L) |       |
| Site Potential            | М                          | М               | М           |       |
| Landscape Potential       | Н                          | М               | L           |       |
| Value                     | Н                          | Н               | Н           | Total |
| Score Based on<br>Ratings | 8                          | 7               | 6           | 21    |

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

| CHARACTERISTIC                     | Category |
|------------------------------------|----------|
| Estuarine                          |          |
| Wetland of High Conservation Value |          |
| Bog                                |          |
| 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         | 1        |
| Hydroperiods   | H 1.2                | 1        |
| Ponded depressions   | R 1.1                | 2        |
| Boundary of area within 150 ft of the wetland (can be added to another figure) | R 2.4                | 1        |
| Plant cover of trees, shrubs, and herbaceous plants                            | R 1.2, R 4.2         | 2        |
| Width of unit vs. width of stream (can be added to another figure)             | R 4.1                | 1        |
| Map of the contributing basin  | R 2.2, R 2.3, R 5.2  | 3        |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including      | H 2.1, H 2.2, H 2.3  | 4        |
| polygons for accessible habitat and undisturbed habitat                        |                      | 4        |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)  | R 3.1                | 5        |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web)     | R 3.2, R 3.3         | 6        |

#### 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?
  - ☑ 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?
  - $\Box$  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.

**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.* 

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□ NO - go to 7 □ YES - The wetland class is Depressional
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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 TID   | <b>AL FRINGE WETLANDS</b>             |   |
|---|---------------------------------------|---|
| Water Quality Functions - Indicators that the site f  | unctions to improve 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 the flooding event:  | at can trap sediments 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 a  | at person height, <b>not</b> Cowardin |   |
| classes)  |                                       |   |
| Trees or shrubs > $^{2}/_{3}$ area of the wetland   | points = 8                            |   |
| $\Box$ Trees or shrubs > $1/3$ area of the wetland  | points = 6                            | 6 |
| $\Box$ Herbaceous plants (> 6 in high) > $^{2}/_{3}$ area of the wetland  | points = 6                            |   |
| Herbaceous plants (> 6 in high) > $1/_3$ area of the wetland  | points = 3                            |   |
| Trees, shrubs, and ungrazed herbaceous $< 1/3$ area of the theorem of the transformation of transform | ne wetland points = 0                 |   |
| Total for R 1 A   | dd 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 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?                            | Voc - 1     | No = 0 | 1 |
| Total for R 2 Add the points  | in the boxe | NO - 0 | 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  | 1 |
| 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> ) Yes = 2 No = 0 | 2 |
| Total for R 3 Add the points in the boxes above  | 4 |

**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 eros  | sion |  |
| 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 &gt;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 > $^{1}/_{10}$ 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 page

| R 5.0. Does the landscape have the potential to support the hydrologic functions of the site? |                      |         |   |
|---|----------------------|---------|---|
| R 5.1. Is the stream or river adjacent to the wetland downcut?                                | Yes = 0              | No = 1  | 0 |
| R 5.2. Does the up-gradient watershed include a UGA or incorp                                 | orated 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   |                      | s above | 2 |

Rating of Landscape Potential If score is: 
3 = H I 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   |                        | 2  |
| conveyance in a regional flood control plan?  | Yes = 2 No = 0         | Z  |
| Total for R 6 Add the points  | in the boxes above     | 4  |
|   | Decent the end the end | the state of the s |

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

Record the rating on the first page

| 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 welland. Up to 10 patches may be combined for each class to meet the threshold of ½ a c or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. <ul> <li>Aquatic bed</li> <li>A structures: points = 4</li> <li>Scrub-shrub (areas where shrubs have &gt; 30% cover)</li> <li>I structure: points = 0</li> <li>If the unit has a Forested class, check if:</li> <li> <li>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</li> <li>H 1.2. Hydroperiods</li> <li>Check the types of water regimes (hydroperiods) present within the welland. The water regime has to cover more than 10% of the welland or ½ ac to count (see text for descriptions of hydroperiods).</li> <li>Permanently flooded or inundated</li> <li>4 or more types present: points = 3</li> <li>Seasonally flooded or inundated</li> <li>Staturated only</li> <li>Staturated only</li> <li>Staturated only</li> <li>Permanently flowing stream or river in, or adjacent to, the welland</li> <li>Sato cover more than 10% of the welland that cover at least 10 ft<sup>2</sup>.</li> <li>Optimum particles of the asime species: Cover at least 10 ft<sup>2</sup>.</li> <li>Storestres of plant species</li> <li>Storestres of plant species in the welland that cover at least 10 ft<sup>2</sup>.</li> <li>Storestrestion of hab</li></li></ul>   | These questions apply to wetlands of all HGM classes.   |   |
|---|---|---|
| H 10. 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 welland. Up to 10 patches may be combined for each class to meet the threshold of ½ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.         Aquatic bed       4 structures or more: points = 4         Emergent       3 structures: points = 1         Forested (areas where trees have > 30% cover)       1 structure: points = 0         If the unit has a Forested class, check if:       1         The Forested (areas where trees have > 30% cover)       1 structure: points = 0         If the unit has a Forested class, check if:       1         The Forested (areas shae 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon         H 12. Hydroperiods       Check the types of water regimes (hydroperiods) present within the welland. The water regime has to cover more than 10% of the welland or ¼ ac to count (see text for descriptions of hydroperiods).         Permanently flooded or inundated       4 or more types present: points = 2         Scasonally flowing stream or river in, or adjacent to, the welland       2 points         Freshwater tidal wetland       2 points         Permanently flowing stream or river in, or adjacent to, the wetland       2 points         If reshwater tidal wetland       2 p  | HABITAT FUNCTIONS - Indicators that site functions to provide important habitat   |   |
| H 1.1. Structure of plant community: Indicators are cowardin 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 1.0. Does the site have the potential to provide habitat?   |   |
| □ Aquatic bed       4 structures or more: points = 4<br>3 structures: points = 2<br>Scructures: points = 2<br>Scructures: points = 2<br>Scructures: points = 0<br>If the unit has a Forested class, check if:<br>□ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous,<br>moss/ground-cover) that each cover 20% within the Forested polygon       1         11.2. Hydroperiods       1         Check the types of water regimes (hydroperiods) present within the wetland. The water regime<br>has to cover more than 10% of the wetland or ½ ac to count (see text for descriptions of<br>hydroperiods).       2         □ Permanently flooded or inundated       4 or more types present: points = 3<br>Scasonally flooded or inundated       3 types present: points = 2<br>2 types present: points = 2<br>2 types present: points = 0         ○ Acasionally flooded or inundated       1 types present: points = 0         □ Permanently flooding stream or river in, or adjacent to, the wetland       2 types present: points = 0         □ Seasonally flooding stream or river in, or adjacent to, the wetland       2 points         □ Freshwater tidal wetland       2 points         □ Freshwater tidal wetland       2 points         □ 13. Richness of plant species       Do on include Eurasian milfoil, reed canarygrass, purple<br>loosestrife, Canadian thistle         11       f you counted:       > 19 species<br>points = 1         ≤ 19 species       points = 0         H 1.4. Interspersion of habitats       Decover more plant classes or three classes and open water, the rating is always high. <td>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 <math>\frac{1}{4}</math> ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.</td> <td></td> | 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 $\frac{1}{4}$ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.  |   |
| 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). <ul> <li>Permanently flooded or inundated</li> <li>A or more types present: points = 3</li> <li>Seasonally flooded or inundated</li> <li>A types present: points = 1</li> <li>Saturated only</li> <li>Itypes present: points = 1</li> <li>Saturated only</li> <li>Types present: points = 0</li> <li>Permanently flowing stream or river in, or adjacent to, the wetland</li> <li>Lake Fringe wetland</li> <li>A points</li> <li>Freshwater tidal wetland</li> <li>Lake Fringe wetland</li> <li>A points</li> <li>Preshwater tidal wetland that cover at least 10 ft<sup>2</sup>.</li> </ul> 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           S is pecies         points = 1               S is pecies <li>S points = 1</li> <li>S is pecies</li> <li>S is pecies</li> <li>S points = 0</li> 1            If you counted:         > 19 species               S is pecies <li>S points = 1</li> <li>S is pecies</li> <li>S is poi</li>  | <ul> <li>□ Aquatic bed</li> <li>↓ 4 structures or more: points = 4</li> <li>○ Emergent</li> <li>○ Scrub-shrub (areas where shrubs have &gt; 30% cover)</li> <li>○ Forested (areas where trees have &gt; 30% cover)</li> <li>○ If the unit has a Forested class, check if:</li> <li>○ 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</li> </ul>              | 1 |
| Permanently flooded or inundated       4 or more types present: points = 3       2         Seasonally flooded or inundated       3 types present: points = 2       2         Occasionally flooded or inundated       2 types present: points = 1       2         Saturated only       1 types present: points = 0       2         Permanently flowing stream or river in, or adjacent to, the wetland       2 points       2         Seasonally flowing stream or river in, or adjacent to, the wetland       2 points       2         H.1.3. Richness of plant species       2 points       2         Count the number of plant species in the wetland that cover at least 10 ft <sup>2</sup> .       Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle       1         If you counted:       > 19 species       points = 2         < 5 species  | H 1.2. Hydroperiods<br>Check the types of water regimes (hydroperiods) present within the wetland. The water regime<br>has to cover more than 10% of the wetland or ¼ ac to count ( <i>see text for descriptions of</i><br><i>hydroperiods</i> ).   |   |
| Lake Pringe wetand       2 points         Freshwater tidal wetand       2 points         H 1.3. Richness of plant species       2 points         Count the number of plant species in the wetland that cover at least 10 ft <sup>2</sup> .       Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle       1         If you counted:       > 19 species       points = 2         < 5 - 19 species   | <ul> <li>Permanently flooded or inundated</li> <li>Seasonally flooded or inundated</li> <li>Seasonally flooded or inundated</li> <li>Occasionally flooded or inundated</li> <li>Saturated only</li> <li>Permanently flowing stream or river in, or adjacent to, the wetland</li> <li>Seasonally flowing stream in, or adjacent to, the wetland</li> <li>Seasonally flowing stream or adjacent to, the wetland</li> </ul>  | 2 |
| H 1.3. Richness of plant species         Count the number of plant 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  | □ Lake Fringe wetland 2 points<br>□ Freshwater tidal wetland 2 points   |   |
| H 1.4. Interspersion of habitats<br>Decide from the diagrams below whether interspersion among Cowardin plants classes<br>(described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is<br>high, moderate, low, or none. <i>If you have four or more plant classes or three classes and open<br/>water, the rating is always high.</i><br>None = 0 points<br>Low = 1 point<br>All three diagrams<br>in this row are<br>None = 0 points<br>Low = 1 point<br>All three diagrams<br>in this row are   | H 1.3. Richness of plant species<br>Count the number of plant species in the wetland that cover at least 10 ft <sup>2</sup> .<br>Different patches of the same species can be combined to meet the size threshold and you do not<br>have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple<br>loosestrife, Canadian thistle<br>If you counted: > 19 species points = 2<br>5 - 19 species points = 1<br>< 5 species points = 0        | 1 |
| HIGH = 3 points   | H 1.4. Interspersion of habitats<br>Decide from the diagrams below whether interspersion among Cowardin plants classes<br>(described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is<br>high, moderate, low, or none. <i>If you have four or more plant classes or three classes and open<br/>water, the rating is always high.</i><br>None = 0 points<br>All three diagrams<br>in this row are<br><b>HIGH</b> = 3 points | 2 |

|   | 1 |
|---|---|
| H 1.5. Special habitat features:  |   |
| Check the habitat features that are present in the wetland. The number of checks is the number of |   |
| points.   |   |
| Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)                    |   |
| $\Box$ Standing snags (dbh > 4 in) within the wetland   |   |
| ☑ Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extends   |   |
| at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at         |   |
| least 33 ft (10 m)  | 3 |
| ☑ Stable steep banks of fine material that might be used by beaver or muskrat for denning         |   |
| (> 30 degree slope) OR signs of recent beaver activity are present ( <i>cut shrubs or trees</i>   |   |
| that have not yet weathered where wood is exposed)  |   |
| □ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas          |   |
| that are permanently or seasonally inundated (structures for egg-laying by amphibians)            |   |
| □ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see         |   |
| H 1.1 for list of strata)   |   |
| Total for H 1 Add the points in the boxes above   | 9 |

**Rating of Site Potential** If Score is:  $\Box$  15 - 18 = H  $\supseteq$  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 & lov                        | w intensity land uses / 2 ) = 0%   |    |
|   |                                    |    |
| If total accessible habitat is:                                       |                                    | 0  |
| > <sup>1</sup> / <sub>3</sub> (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:  |                                    |    |
| 0 % undisturbed habitat + ( 17 % moderate & lov                       | w intensity land uses / 2 ) = 8.5% |    |
|   |                                    | 0  |
| Undisturbed habitat > 50% of Polygon                                  | points = 3                         | U  |
| 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   | -2 |

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? | 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                        | t             |                |
| 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 ValueIf Score is: Image: 2 = HImage: 1 = MImage: 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: <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 |
|-----------|--|----------|
| 01        |  |          |
| Check off | any criteria that apply to the wetland. List the category when the appropriate criteria are met.                               |          |
| 50 1.0.1  | Estuarine wetlands   |          |
|           | The dominant water regime is tidal   |          |
|           | Vegetated and  |          |
|           | With a solinity greater than 0.5 ppt   |          |
|           | $\Box  \text{Vec}  \Box  \nabla c = \mathbf{N} \mathbf{C} \mathbf{C} \mathbf{C} \mathbf{C} \mathbf{C} \mathbf{C} \mathbf{C} C$ |          |
| 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 332-30-1512   |          |
|           | $\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} - \text{Go to SC 1 2}$  |          |
| 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 <sup>3</sup> / <sub>4</sub> 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. \ | Netlands of High Conservation Value (WHCV)   |          |
| SC 2.1.   | Has the WA Department of Natural Resources updated their website to include the list   |          |
|           | of Wetlands of High Conservation Value?  |          |
|           | ✓ Yes - Go to SC 2.2 □ No - Go to SC 2.3   |          |
| SC 2.2.   | Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?  |          |
|           | □ Yes = Category I □ No = Not WHCV   |          |
| SC 2.3.   | Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?   |          |
|           | http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf   |          |
|           | Yes - Contact WNHP/WDNR and to SC 2.4 Volume 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 | 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?  |          |
|           | $\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No = Is not a bog}$  |          |
| 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?  |          |
|           | $\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No - Go to SC 3.4}$  |          |
|           | NUTE: IT 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,                                     |          |
| 60.24     | the wettand is a bog.  |          |
| 30 3.4.   | is an area with peaks of mucks forested (> 30% cover) with Sitka spruce, subalpine fir,  |          |
|           | western red cedar, western hemiock, lodgepole pine, quaking aspen, Engelmann   |          |
|           | in Table 4 provide more than 30% of the cover under the concerv?   |          |
|           |  |          |
| 1         | $\Box$ Tes = is a category Loog $\Box$ NO = 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 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 1       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 be measured near the bottom</i> )         Yes - 6 to SC 5.1       No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least ¾ of the landward   |
|---|
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| <ul> <li>Schledadet file betom?</li> <li>No = Not a wetland in a coastal lagoon</li> <li>SC 5.1. Does the wetland meet all of the following three conditions?</li> <li>The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>Yes = Category I</li> <li>No = Category II</li> </ul> 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:   |
| <ul> <li>SC 5.1. Does the wetland meet all of the following three conditions?</li> <li>The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>Yes = Category I No = Category II</li> </ul> SC 6.0. Interdunal Wetlands <ul> <li>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.</li> <li>In practical terms that means the following geographic areas:</li> </ul>   |
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| <ul> <li>At react 74 of the failed under dege of the wetland has a feet it baller of shifts, forest, of all grazed or un-mowed grassland.</li> <li>The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)         <ul> <li>Yes = Category I</li> <li>No = Category II</li> </ul> </li> <li>SC 6.0. Interdunal Wetlands         <ul> <li>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.             <ul> <li>In practical terms that means the following geographic areas:</li> <li>Is no practical terms that means the following geographic areas:</li> </ul> </li> </ul></li></ul>  |
| <ul> <li>□ The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>□ Yes = Category I</li> <li>□ No = Category II</li> <li>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:     </li> </ul>   |
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| Is the wetland west of the 1889 line (also called the Western Boundary of Upland<br>Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland</i><br><i>based on its habitat functions.</i><br>In practical terms that means the following geographic areas:   |
| Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i><br>In practical terms that means the following geographic areas:   |
| based on its habitat functions.<br>In practical terms that means the following geographic areas:  |
| In practical terms that means the following geographic areas:   |
| In practical terms that means the following geographic areas.   |
|   |
| Creviand Westport: Lands west of SP 105   |
| Oraginal - Westport. Lanus west of SR 105     Ocean Shares Conalis: Lands west of SR 115 and SR 100   |
| $\Box$ Ocean Shores-Copans. Lands west of SK 115 and SK 109<br>$\Box$ 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?   |
| □ 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  |



150-Foot Buffer

Note: The wetland boundary is approximate based on visual observation. It has not been delineated or surveyed.

Emergent/Seasonally Flooded

9/30/2019 QUESTIONS H1.1, H1.2, H1.4, R1.1, R2.4, R4.1

**FIGURE 1** 





Note: The wetland boundary is approximate based on visual observation. It has not been delineated or surveyed.

#### West Seattle and Ballard Link Extensions









## **RATING SUMMARY – Western Washington**

| Name of wetland (or ID #): | Wetland WSE3         |                                    | Date of site visit: | 8/23/2019 |
|----------------------------|----------------------|------------------------------------|---------------------|-----------|
| Rated by R. Whitson and A. | Rotondo              | Trained by Ecology? ☑ Yes □ No     | Date of training    | Mar-15    |
| HGM Class used for rating  | Depressional & Flats | Wetland has multipl                | e HGM classes? 🗹    | Yes 🗆 No  |
| NOTE: Form is no           | ot complete with out | the figures requested (figures can | be combined ).      |           |

Source of base aerial photo/map King County Pictometry

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<br>Water Quality | Hydrologic      | Habitat     |       |
|---------------------------|----------------------------|-----------------|-------------|-------|
|                           | List app                   | ropriate rating | g (H, M, L) |       |
| Site Potential            | М                          | М               | М           |       |
| Landscape Potential       | Н                          | Н               | L           |       |
| Value                     | Н                          | Н               | Н           | Total |
| Score Based on<br>Ratings | 8                          | 8               | 6           | 22    |

| 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  | 1        |
| Hydroperiods   | D 1.4, H 1.2         | 1        |
| Location of outlet (can be added to map of hydroperiods)                       | D 1.1, D 4.1         | 1        |
| Boundary of area within 150 ft of the wetland (can be added to another figure) | D 2.2, D 5.2         | 1        |
| Map of the contributing basin  | D 4.3, D 5.3         | 2        |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including      | H 2.1, H 2.2, H 2.3  | 2        |
| polygons for accessible habitat and undisturbed habitat                        |                      | 5        |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)  | D 3.1, D 3.2         | 4        |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web)     | D 3.3                | 5        |

#### **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 (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?
  - $\Box$  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: Wetland WSE3 has depressional and riverine HGM classifications.

| DEPRESSIONAL AND FLATS WETLANDS  |                   |  |
|--|-------------------|--|
| Water Quality Functions - Indicators that the site functions to improve water qua                                    | lity              |  |
| 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               |  |
| 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-shrub, and/or                          |                   |  |
| Forested Cowardin classes):  |                   |  |
| Wetland has persistent, ungrazed, plants > 95% of area points  | = 5               |  |
| Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area points  | = 3               |  |
| Wetland has persistent, ungrazed plants > $\frac{1}{10}$ of area points  | = 1               |  |
| Wetland has persistent, ungrazed plants $< \frac{1}{10}$ 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 points in the boxes abo  | ove 6             |  |
| <b>Rating of Site Potential</b> 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 ι                              | 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 <u>Dogs</u>  | Yes = 1                               | No = 0             |        |
| Total for D 2   | Add the points in the boxe            | es above           | 3      |
| not listed in questions D 2.1 - D 2.3?<br>Source <u>Dogs</u><br>Total for D 2                   | Yes = 1<br>Add the points in the boxe | No = 0<br>es above | 1<br>3 |

**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 val                            | uable to society?             |           |                |
|---|-------------------------------|-----------|----------------|
| D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a                         | 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 I                            | 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 fo                             | r the basin in                |           | 2              |
| which the unit is found )?  | Yes = 2                       | No = 0    |                |
| Total for D 3   | Add the points in the boxe    | s above   | 4              |
| <b>Rating of Value</b> If score is: $\boxed{2} \cdot 4 = H$ $\boxed{1} = M$ $\boxed{0} = L$ | Record the                    | rating on | the first page |

| DEPRESSIONAL AND FLATS WETLANDS   |                   |  |
|---|-------------------|--|
| Hydrologic Functions - Indicators that the site functions to reduce flooding and stream de  | gradation         |  |
| 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                 |  |
| D 4.2. <u>Depth of storage during wet periods</u> : <i>Estimate the height of ponding above the bottom of</i>   |                   |  |
| the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the   | 2                 |  |
| deepest part.   |                   |  |
| Marks of ponding are 3 ft or more above the surface or bottom of outlet points =  | 7                 |  |
| Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points =   | 5 3               |  |
| ☑ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points =   | 3                 |  |
| □ The wetland is a "headwater" wetland points =   | 3                 |  |
| Wetland is flat but has small depressions on the surface that trap water points =   | 1                 |  |
| Marks of ponding less than 0.5 ft (6 in) points =   | 3                 |  |
| 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 =  | <sup>5</sup> 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 =  | J                 |  |
| Entire wetland is in the Flats class     points =   | 5                 |  |
| Total for D 4 Add the points in the boxes abov  | ə <b>3</b>        |  |
| Rating of Site Potential If score is: $\Box$ 12 - 16 = H $\Box$ 6 - 11 = M $\Box$ 0 - 5 = LRecord the rating of the state of the stat | on the first page |  |
| D 5.0. Does the landscape have the notential to support hydrologic function of the site?  |                   |  |

| D 3.0. 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   | 1 |
| D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human      |   |
| land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?                  | 1 |
| Yes = 1 No = 0   |   |
| Total for D 5 Add the points in the boxes above  | 3 |

**Rating of Landscape Potential** If score is:  $\Box$  3 = H  $\Box$  1 or 2 = M  $\Box$  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):                        |                  |
| <ul> <li>Flooding occurs in a sub-basin that is immediately down-</li> </ul>                                 |                  |
| gradient of unit. points = 2   | 2                |
| <ul> <li>Surface flooding problems are in a sub-basin farther down-</li> </ul>                               | 2                |
| gradient. points = 1   |                  |
| □ Flooding from groundwater is an issue in the sub-basin. points = 1   |                  |
| The existing or potential outflow from the wetland is so constrained   |                  |
| by human or natural conditions that the water stored by the wetland  |                  |
| cannot reach areas that flood. Explain why points = 0  |                  |
| □ There are no problems with flooding downstream of the wetland. points = 0                                  |                  |
| D 6.2. Has the site been identified as important for flood storage or flood                                  | 2                |
| conveyance in a regional flood control plan? Yes = 2 No = 0  | 2                |
| Total for D 6 Add the points in the boxes above  | 4                |
| <b>Rating of Value</b> If score is: $\square 2 - 4 = H$ $\square 1 = M$ $\square 0 = L$ Record the rating or | n 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><br><i>Forested class.</i> Check the Cowardin plant classes in the wetland. Up to 10 patches may be<br>combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller<br>than 2.5 ac. Add the number of structures checked.  |   |
| <ul> <li>Aquatic bed</li> <li>Emergent</li> <li>Scrub-shrub (areas where shrubs have &gt; 30% cover)</li> <li>Forested (areas where trees have &gt; 30% cover)</li> <li>I structure: points = 0</li> <li>If the unit has a Forested class, check if:</li> <li>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</li> </ul>  | 1 |
| H 1.2. Hydroperiods<br>Check the types of water regimes (hydroperiods) present within the wetland. The water regime<br>has to cover more than 10% of the wetland or ¼ ac to count ( <i>see text for descriptions of</i><br><i>hydroperiods</i> ).  |   |
| <ul> <li>Permanently flooded or inundated</li> <li>Seasonally flooded or inundated</li> <li>Seasonally flooded or inundated</li> <li>Occasionally flooded or inundated</li> <li>Occasionally flooded or inundated</li> <li>Saturated only</li> <li>Permanently flowing stream or river in, or adjacent to, the wetland</li> <li>Seasonally flowing stream in, or adjacent to, the wetland</li> </ul>   | 3 |
| <ul> <li>☐ Lake Fringe wetland</li> <li>2 points</li> <li>7 Freshwater tidal wetland</li> <li>2 points</li> </ul>  |   |
| H 1.3. Richness of plant species<br>Count the number of plant species in the wetland that cover at least 10 ft <sup>2</sup> .<br>Different patches of the same species can be combined to meet the size threshold and you do<br>not have to name the species. <b>Do not include Eurasian milfoil, reed canarygrass, purple</b><br><b>loosestrife, Canadian thistle</b><br>If you counted: > 19 species points = 2<br>5 - 19 species points = 1<br>< 5 species points = 0           | 1 |
| H 1.4. Interspersion of habitats<br>Decide from the diagrams below whether interspersion among Cowardin plants classes<br>(described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats)<br>is high, moderate, low, or none. <i>If you have four or more plant classes or three classes and open</i><br><i>water, the rating is always high</i> .<br>None = 0 points<br>Low = 1 point<br>All three diagrams<br>in this row are<br>HIGH = 3 points | 2 |
|  |   |

| 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         > $1/_3$ (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:         0       % undisturbed habitat in 1 km Polygon around the wetland.  | H 2.0. Does the landscape have the potential to support the habitat function of the site? |  |  |
|---|---|--|--|
| Calculate:       0       % undisturbed habitat       +       (       0       % moderate & low intensity land uses / 2 ) = 0%       0         If total accessible habitat is:       0       9       9       9       9       9       9       9       9       9       9       9       9       9       0 </td <td></td> |   |  |  |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $   |   |  |  |
| If total accessible habitat is:0> $^{1}/_{3}$ (33.3%) of 1 km Polygonpoints = 320 - 33% of 1 km Polygonpoints = 210 - 19% of 1 km Polygonpoints = 1< 10 % of 1 km Polygon   |   |  |  |
| If total accessible habitat is:0> $^{1}/_{3}$ (33.3%) of 1 km Polygonpoints = 320 - 33% of 1 km Polygonpoints = 210 - 19% of 1 km Polygonpoints = 1< 10 % of 1 km Polygon   |   |  |  |
| $ \begin{array}{c c} & > \ {}^{1}/_{3} \ (33.3\%) \ \text{of 1 km Polygon} & \text{points = 3} \\ & 20 - 33\% \ \text{of 1 km Polygon} & \text{points = 2} \\ & 10 - 19\% \ \text{of 1 km Polygon} & \text{points = 1} \\ & < 10 \ \% \ \text{of 1 km Polygon} & \text{points = 0} \end{array} $  |   |  |  |
| 20 - 33% of 1 km Polygonpoints = 2 $10 - 19%$ of 1 km Polygonpoints = 1 $< 10%$ of 1 km Polygonpoints = 0H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.Calculate:0 % undisturbed habitat + (10 % moderate & low intensity land uses / 2 ) = 5%  |   |  |  |
| 10 - 19% of 1 km Polygon       points = 1         < 10 % of 1 km Polygon  |   |  |  |
| < 10 % of 1 km Polygon  |   |  |  |
| H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.<br><i>Calculate:</i><br><u>0</u> % undisturbed habitat + ( <u>10</u> % moderate & low intensity land uses / 2 ) = 5%   |   |  |  |
| Calculate:<br><u>0</u> % undisturbed habitat + ( <u>10</u> % moderate & low intensity land uses / 2 ) = 5%  |   |  |  |
| 0 % undisturbed habitat + ( 10 % moderate & low intensity land uses / 2 ) = 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) -2   |   |  |  |
| ≤ 50% of 1km Polygon is high intensity points = 0   |   |  |  |
| Total for H 2Add the points in the boxes above-2  |   |  |  |

**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 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                         |                  | 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 ValueIf Score is: $\Box$ 2 = HI = MI = CReco                                    | 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: <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 |
|----------|---|----------|
| Chaok of | i any aritaria that annu to the watland. List the astronomy when the annuarists aritaria are mat                      |          |
|          | any chiena that apply to the wetland. List the category when the appropriate chiena are met.                          |          |
| 56 1.0.1 | Estuarine wetlands  |          |
|          | The deminent water regime is tide.  |          |
|          | Vegeteted, and  |          |
|          | Vegetated, and<br>With a colligity grouter than 0.5 met   |          |
|          | with a salinity greater than 0.5 ppt  |          |
| 0011     | Yes - Go to SC 1.1No = 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?  |          |
|          | $\Box Yes = Category I \qquad \Box No - Go to SC 1.2$   |          |
| SC 1.2.  | Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?                   |          |
|          | I he 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 <sup>3</sup> / <sub>4</sub> 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.  | Netlands of High Conservation Value (WHCV)  |          |
| SC 2.1.  | Has the WA Department of Natural Resources updated their website to include the list                                  |          |
|          | of Wetlands of High Conservation Value?   |          |
|          | ✓ Yes - Go to SC 2.2 No - Go to SC 2.3  |          |
| SC 2.2.  | Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?                                   |          |
|          | □ Yes = Category I  |          |
| 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.  | 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 clav or volcanic                                 |          |
|          | ash, or that are floating on top of a lake or pond?   |          |
|          | $\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No = Is not a box}$   |          |
| 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   |          |
|          | <b>NOTE:</b> If you are uncertain about the extent of mosses in the understory you may                                |          |
|          | substitute that criterion by measuring the pH of the water that seens 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 hore   |          |
| SC 34    | Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalning fir                                |          |
|          | western red cedar western hemlock lodgenole nine guaking aspen. Engelmann   |          |
|          | spruce or western white nine AND any of the species (or combination of species) listed                                |          |
|          | in Table 4 provide more than 30% of the cover under the capony?   |          |
|          | $\Box V_{ab} = le \circ Cotogony I hog \Box \Box N_{ab} = le o to hog$  |          |
| I        |   | 1        |

| SC 4 0    | orested 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 babitats? <b>If you</b>                     |  |
|           | answor VES you will still nood to rate the wetland based on its functions   |  |
|           | <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species                                |  |
|           | forming a multi-layered canony with occasional small openings: with at least 8 trees/ac                               |  |
|           | (20 trees/ba) that are at least 200 years of are OR have a diameter at breast height                                  |  |
|           | (dbb) 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 capony have an average diameter (dbh)                                   |  |
|           | exceeding 21 in (53 cm)   |  |
|           |   |  |
|           | ☐ Yes = 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 Wo = 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 <sup>3</sup> / <sub>4</sub> 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 <sup>2</sup> )  |  |
|           | □ 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?   |  |
| -         | └─ 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   |  |



#### West Seattle and Ballard Link Extensions









## **RATING SUMMARY – Western Washington**

| Name of wetland (or ID #):  | Wetland WSE4   | Date of site visit:                   | 8/23/2019 |
|-----------------------------|--|---------------------------------------|-----------|
| Rated by R. Whitson, A. Rot | ondo Trained by Ecology  | ? ☑ Yes □ No Date of training         | Mar-15    |
| HGM Class used for rating   | Slope Wet  | land has multiple HGM classes? $\Box$ | Yes       |
| NOTE: Form is no<br>Source  | ot complete with out the figures request<br>of base aerial photo/map | ted (figures can be combined).        |           |

**OVERALL WETLAND CATEGORY** \_\_\_\_\_ (based on functions  $\square$  or special characteristics  $\square$  )

## 1. Category of wetland based on FUNCTIONS

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

| FUNCTION                  | Improving<br>Water Quality | Hydrologic      | Habitat     |      |
|---------------------------|----------------------------|-----------------|-------------|------|
|                           | List app                   | ropriate rating | 1 (H, M, L) |      |
| Site Potential            | L                          | L               | L           |      |
| Landscape Potential       | М                          | М               | L           |      |
| Value                     | М                          | L               | М           | Tota |
| Score Based on<br>Ratings | 5                          | 4               | 4           | 13   |

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

| CHARACTERISTIC                     | Category |
|------------------------------------|----------|
| Estuarine                          |          |
| Wetland of High Conservation Value |          |
| Bog                                |          |
| Mature Forest                      |          |
| Old Growth Forest                  |          |
| Coastal Lagoon                     |          |
| Interdunal                         |          |
| None of the above                  | 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         | 1        |
| Hydroperiods   | H 1.2                | 1        |
| Plant cover of dense trees, shrubs, and herbaceous plants                      | S 1.3                | 1        |
| Plant cover of dense, rigid trees, shrubs, and herbaceous plants               | S 4.1                | 1        |
| (can be added to another figure )  |                      | I        |
| Boundary of area within 150 ft of the wetland (can be added to another figure) | S 2.1, S 5.1         | 1        |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including      | H 2.1, H 2.2, H 2.3  | 2        |
| polygons for accessible habitat and undisturbed habitat                        |                      | 2        |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)  | S 3.1, S 3.2         | 3        |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web)     | S 3.3                | 4        |

## 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
  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.
  - $\ensuremath{\boxdot}$  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.* 

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

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

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

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

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

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

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

| SLOPE WETLANDS   |   |
|--|---|
| Water Quality Functions - Indicators that the site functions to improve water quality  |   |
| S 1.0. Does the site have the potential to improve water quality?  |   |
| S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance)   |   |
| Slope is 1% or less points = 3   | 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   | 0 |
| organic ( <i>use NRCS definitions</i> ): Yes = 3 No = 0  | 0 |
| S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants:<br>Choose the points appropriate for the description that best fits the plants in the wetland. <i>Dense</i><br><i>means you have trouble seeing the soil surface (&gt;75% cover), and uncut means not grazed or</i><br><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 > $\frac{1}{2}$ 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  | 3 |

**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 of the wetland in land uses that generate pollutants? | Yes = 1        | No = 0     | 1             |
| S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?        | •              |            | 1             |
| Other Sources <u>Encampment</u>  | Yes = 1        | No = 0     |               |
| Total for S 2 Add the poin   | ts in the boxe | es above   | 2             |
|  | <b>D</b> 1/1   | <i>(</i> ' | () <b>(</b> ) |

| <b>Rating of Landscape Potential</b> If score is: $\Box$ <b>1 - 2 = M</b> | $\square 0 = L$            | Record the rating on the first page |
|---|----------------------------|-------------------------------------|
| S 3.0. Is the water quality improvement provided by the                   | he site valuable to societ | v?                                  |

| S 3.0. Is the water quality improvement provided by the site val  | lable to society?               |           |                |
|---|---------------------------------|-----------|----------------|
| S 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    |                |
| S 3.2. Is the wetland in a basin or sub-basin where water qualit  | / is an issue?                  |           | 1              |
| At least one aquatic resource in the basin is on the 303(d) list.   | Yes = 1                         | No = 0    | •              |
| S 3.3. Has the site been identified in a watershed or local plan a for maintaining water quality? Answer YES if there is a TMDL for | as important<br>or the basin in |           | 0              |
| which the unit is found?  | Yes = 2                         | No = 0    |                |
| Total for S 3   | Add the points in the boxes     | s above   | 1              |
| <b>Rating of Value</b> If score is: $\Box$ <b>2 - 4 = H</b> $\boxdot$ <b>1 = M</b> $\Box$ <b>0 = L</b>                              | Record the                      | rating on | the first page |

| SLOPE WETLANDS  |                          |                |
|---|--------------------------|----------------|
| Hydrologic Functions - Indicators that the site functions to reduce flo   | oding and stream er      | osion          |
| S 4.0. Does the site have the potential to reduce flooding and stream erosion   | ?                        |                |
| the points appropriate for the description that best fits conditions in the wetlar should be thick enough (usually > $^{1}/_{8}$ in), or dense enough, to remain erect of | d. Stems of plants       | 0              |
| <i>flows.</i><br>Dense, uncut, <b>rigid</b> plants cover > 90% of the area of the wetland<br>All other conditions   | points = 1<br>points = 0 | 0              |
| <b>Bating of Site Potential</b> If score is: $\Box 1 = \mathbf{M} = 0 = \mathbf{I}$   | Record the rating on     | the first nage |

**Rating of Site Potential** If score is:  $\Box 1 = M \quad \boxdot 0 = L$ 

Record the rating on the first page

| S 5.0. Does the landscape have the potential to support hydrologic functions | of the site? |           |                |
|--|--------------|-----------|----------------|
| S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land |              |           | 1              |
| uses or cover that generate excess surface runoff?                           | Yes = 1      | No = 0    |                |
| Rating of Landscape Potential If score is: <a>I = M</a> <a>0 = L</a>         | 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           | 0              |
| 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 6Add the points  | in the boxes above   | 0              |
| Rating of Value If score is: □ 2 - 4 = H □ 1 = M ☑ 0 = L   | Record the rating on | the first page |

NOTES and FIELD OBSERVATIONS:

| These questions apply to wetlands of all HGM classes.   |   |  |
|---|---|--|
| HABITAT FUNCTIONS - Indicators that site functions to provide important habitat   |   |  |
| H 1.0. Does the site have the potential to provide habitat?   |   |  |
| H 1.1. Structure of plant community: <i>Indicators are Cowardin classes and strata within the 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.  |   |  |
| <ul> <li>□ Aquatic bed</li> <li>↓ Structures or more: points = 4</li> <li>□ Emergent</li> <li>□ Scrub-shrub (areas where shrubs have &gt; 30% cover)</li> <li>□ Forested (areas where trees have &gt; 30% cover)</li> <li>□ Forested (areas where trees have &gt; 30% cover)</li> <li>□ Structure: points = 0</li> <li>□ If the unit has a Forested class, check if:</li> <li>□ 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</li> </ul>   | 1 |  |
| H 1.2. Hydroperiods<br>Check the types of water regimes (hydroperiods) present within the wetland. The water regime<br>has to cover more than 10% of the wetland or ¼ ac to count ( <i>see text for descriptions of</i><br><i>hydroperiods</i> ).   |   |  |
| <ul> <li>□ Permanently flooded or inundated</li> <li>□ Seasonally flooded or inundated</li> <li>□ Seasonally flooded or inundated</li> <li>□ Occasionally flooded or inundated</li> <li>□ Occasionally flooded or inundated</li> <li>□ Saturated only</li> <li>□ Permanently flowing stream or river in, or adjacent to, the wetland</li> <li>□ Seasonally flowing stream in, or adjacent to, the wetland</li> <li>□ Lake Fringe wetland</li> <li>□ A to more types present: points = 3</li> <li>3 types present: points = 2</li> <li>2 types present: points = 1</li> <li>□ Types present: points = 0</li> <li>□ Permanently flowing stream in, or adjacent to, the wetland</li> <li>□ Lake Fringe wetland</li> </ul>  | 1 |  |
| □ Eake Fringe wetland 2 points<br>□ Freshwater tidal wetland 2 points   |   |  |
| H 1.3. Richness of plant species         Count the number of plant species in the wetland that cover at least 10 ft <sup>2</sup> .         Different patches of the same species can be combined to meet the size threshold and you do         not have to name the species.         Do not include Eurasian milfoil, reed canarygrass, purple         loosestrife, Canadian thistle         If you counted:       > 19 species         points = 2         5 - 19 species       points = 1  | 1 |  |
| <pre>&lt; 5 species points = 0</pre>  |   |  |
| Interspersion of nabitats         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.         Image: the state of t | 1 |  |
| All three diagrams in this row are <b>HIGH = 3</b> 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.  |   |
| $\Box$ 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) <b>and/or</b> overhanging plants extends     |   |
| at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at           |   |
| least 33 ft (10 m)  | 0 |
| Stable steep banks of fine material that might be used by beaver or muskrat for                     |   |
| denning (> 30 degree slope) OR signs of recent beaver activity are present ( <i>cut shrubs</i>      |   |
| or trees that have not yet weathered where wood is exposed)   |   |
| $\Box$ At least $\frac{1}{4}$ ac of thin-stemmed persistent plants or woody branches are present in |   |
| areas that are permanently or seasonally inundated (structures for egg-laying by                    |   |
| □ 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  $\supseteq$  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 + (10 % moderate & low intensity land uses / 2 ) = 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:  |    |
| 0 % undisturbed habitat + ( 5 % moderate & low intensity land uses / 2 ) = $2.5\%$        |    |
|   | 0  |
| Undisturbed habitat > 50% of Polygon points = 3   | 0  |
| 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 2Add the points in the boxes above  | -2 |

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)                  | ge)                                 |
| <ul> <li>It provides habitat for Threatened or Endangered species (</li> </ul>   | 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 loc                    | cal or                              |
| regional comprehensive plan, in a Shoreline Master Plan, o                       | 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 $\Box$ 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: <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 |
|--|--|----------|
|  |  |          |
| Check of   | any criteria that apply to the wetland. List the category when the appropriate criteria are met.                                     |          |
| 50 1.0.1   | 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 <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.   |          |
|  | □ 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?  |          |
| 60.00  | $\square$ Yes - Go to <b>SC 2.2</b> $\square$ No - Go to <b>SC 2.3</b>   |          |
| 56 2.2.  | Is the wetland listed on the WDINR database as a Wetland of High Conservation Value  |          |
| 60.2.2   | $\Box$ Yes = Category I $\Box$ NO = Not WHCV<br>Is the wetland in a Section/Townshin/Pange that contains a Natural Heritage wetland? |          |
| 30 2.3.  | bttp://www1.dpr.wo.dov/php/refdeck/datasearch/wphpwetlands.pdf   |          |
|  | $\Box  \forall e_{S} = Contact WNHP/WDNP and to SC 2.4 \qquad \Box  No = Not WHCV$   |          |
| SC 2.4   | Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation   |          |
| 00 2.4.  | Value and listed it on their website?  |          |
|  | □ Yes = Category I   |          |
| 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 <b>SC 3.3</b> □ No - Go to <b>SC 3.2</b>   |          |
| SC 3.2.  | Does an area within the wetland unit have organic soils, either peats or mucks, that are   |          |
|  | less than 16 in deep over bedrock, or an impermeable hardpan such as clay or   |          |
|  | volcanic ash, or that are floating on top of a lake or pond?   |          |
|  | $\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No} = \text{Is not a bog}$   |          |
| 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?  |          |
|  | $\Box \text{ Yes} = \text{Is a Category I bog} \qquad \Box \text{ No - Go to SC 3.4}$  |          |
| NOIE: 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 |  |          |
| the wetland is a bag   |  |          |
| SC 34  | uie weilallu is a buy.<br>Is an area with neats or mucks forested (> 20% cover) with Sitka oprice, subalains fir                     |          |
|  | western red cedar western hemlock Indoende nine dusking senen. 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 1 contiguous acre of forest that meets one of these   |  |
|          | criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <b>If you</b>  |  |
|          | answer VFS you will still need to rate the wetland based on its functions  |  |
|          | Old growth forasts (west of Caseada creat): Stands of at least two tree species  |  |
|          | <b>Ciu-growin foresis</b> (west of Cascade crest). Stands of at least two free 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).   |  |
|          |  |  |
| 00 5 0   | ☐ Yes = Category I ☑ No = Not a forested wetland for this section Wetlands in Constal Language   |  |
| 50 5.0.  | wetlands in Coastal Lagoons  |  |
| _        | Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?  |  |
|          | The wetland lies in a depression adjacent to marine waters that is wholly or partially   |  |
|          | separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,   |  |
|          | rocks  |  |
|          | The lagoon in which the wetland is located contains ponded water that is saline or   |  |
|          | brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon ( <i>needs to</i>   |  |
|          | be measured near the bottom )  |  |
|          | Yes - Go to SC 5.1 Wo = 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 <sup>3</sup> / <sub>4</sub> 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 $\frac{1}{40}$ ac (4350 ft <sup>2</sup> )   |  |
|          | $\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Category I}$  |  |
| 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:  |  |
|          | I ong Reach Peninsula: Lands west of SR 103  |  |
|          | Crayland-Westport: Lands west of SP 105  |  |
|          | Ocean Shores Conalis: Lands west of SP 115 and SP 100  |  |
|          | $\Box  \forall e \in Co \text{ to } \mathbf{C} \in 1  \Box  \forall e \in \mathbf{N} = \mathbf{N}$ |  |
|          | $\square$  |  |
| 0.1.     | (rates H H H or H H M for the three expects of function)?  |  |
|          | ( a e > n, n, n   0  n, n, w   0    u e   u e e aspects of  u  c  0 )?   |  |
|          | $\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No - Go to SC 6.2}$   |  |
| 50 6.2.  | is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?  |  |
|          | $\Box \text{ Yes} = \text{Category II} \qquad \Box \text{ No - Go to SC 6.3}$  |  |
| 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  |  |
| Catego   | ry of wetland based on Special Characteristics   |  |
| If you a | nswered No for all types, enter "Not Applicable" on Summary Form   |  |

West Seattle and Ballard Link Extensions

## **JACOBS**°



West Seattle and Ballard Link Extensions

## JACOBS<sup>®</sup>







## **RATING SUMMARY – Western Washington**

| Name of wetland (or ID #): WSE11  |                              | Date of site visit: | 2/10/2023 |  |  |
|---|------------------------------|---------------------|-----------|--|--|
| Rated by B. O'Neill & T. McIntyre   | Trained by Ecology? ☑Yes □No | Date of training    | 2008      |  |  |
| HGM Class used for rating Depressional 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/majESRI Aerial Layer

**OVERALL WETLAND CATEGORY** III (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<br>Water Quality | Hydrologic     | Habitat   |      |
|---------------------------|----------------------------|----------------|-----------|------|
|                           | List appr                  | opriate rating | (H, M, L) |      |
| Site Potential            | L                          | М              | L         |      |
| Landscape Potential       | Н                          | М              | L         |      |
| Value                     | Н                          | L              | Н         | Tota |
| Score Based on<br>Ratings | 7                          | 5              | 5         | 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  | WSE11     |
| Hydroperiods  | D 1.4, H 1.2         | WSE Hydro |
| Location of outlet (can be added to map of hydroperiods)                                | D 1.1, D 4.1         | WSE11     |
| Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> ) | D 2.2, D 5.2         | WSE11     |
| Map of the contributing basin   | D 4.3, D 5.3         | WSE11     |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including               | H 2.1, H 2.2, H 2.3  | WSE 1 km  |
| 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         | 303(d)    |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web)              | D 3.3                | TMDL      |

#### **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) □ 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).

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* 

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:

| DEPRESSIONAL AND FLATS WETLANDS   |                 |   |  |
|---|-----------------|---|--|
| Water Quality Functions - Indicators that the site functions to improv              | e water quality | / |  |
| D 1.0. Does the site have the potential to improve water quality?                   |                 |   |  |
| D 1.1. Characteristics of surface water outflows from the wetland:                  |                 |   |  |
| Wetland is a depression or flat depression (QUESTION 7 on key)                      |                 |   |  |
| with no surface water leaving it (no outlet).                                       | points = 3      |   |  |
| Wetland has an intermittently flowing stream or ditch, OR highly                    |                 |   |  |
| constricted permanently flowing outlet.   | points = 2      | 3 |  |
| Wetland has an unconstricted, or slightly constricted, surface                      |                 |   |  |
| outlet 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      | 0 |  |
| D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub | o, and/or       |   |  |
| Forested Cowardin classes):   |                 |   |  |
| Wetland has persistent, ungrazed, plants > 95% of area                              | points = 5      | 0 |  |
| Wetland has persistent, ungrazed, plants > 1/2 of area                              | points = 3      | 0 |  |
| Wetland has persistent, ungrazed plants $> 1/10$ of area                            | points = 1      |   |  |
| Wetland has persistent, ungrazed plants $< 1/10$ of area                            | points = 0      |   |  |
| D 1.4. Characteristics of seasonal ponding or inundation:                           |                 |   |  |
| This is the area that is ponded for at least 2 months. See description in manual.   |                 |   |  |
| Area seasonally ponded is > $\frac{1}{2}$ 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 points in the   | boxes above     | 3 |  |

Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = LRecord 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                      | at                |          | 1              |  |
| generate pollutants?  | Yes = 1           | No = 0   | I              |  |
| D 2.3. Are there septic systems within 250 ft of the wetland?                                   | Yes = 1           | No = 0   | 0              |  |
| D 2.4. Are there other sources of pollutants coming into the wetland that                       | at                |          |                |  |
| are not listed in questions D 2.1 - D 2.3?  |                   |          | 1              |  |
| Source Nearby industry and residential lawns  | Yes = 1           | No = 0   |                |  |
| Total for D 2 Add the po  | oints in the boxe | es above | 3              |  |
| Rating of Landscape Potential If score is 3 or 4 = H 1 or 2 = 1 0 Record the rating on t        |                   |          | 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, 1 river, 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 2 in which the unit is found)? v. 2 NIa  $\sim$ 

|  |         |       | Yes = 2 NO = 0                    |                |
|--|---------|-------|-----------------------------------|----------------|
| Total for D 3                          |         |       | Add the points in the boxes above | 4              |
| Rating of Value If score is: 2 - 4 = H | 1 = M 🗌 | 0 = L | Record the rating on              | the first page |

| DEPRESSIONAL AND FLATS WETLANDS  |                 |               |  |  |
|--|-----------------|---------------|--|--|
| Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation  |                 |               |  |  |
| D 4.0. Does the site have the potential to reduce flooding and erosion?  | -               |               |  |  |
| D 4.1. Characteristics of surface water outflows from the wetland:   |                 |               |  |  |
| Wetland is a depression or flat depression with no surface water   |                 |               |  |  |
| leaving it (no outlet)   | points = 4      |               |  |  |
| Wetland has an intermittently flowing stream or ditch, OR highly   |                 |               |  |  |
| constricted permanently flowing outlet   | points = 2      | 4             |  |  |
| Wetland is a flat depression (QUESTION 7 on key), whose outlet   | -               |               |  |  |
| is a permanently flowing ditch   | points = 1      |               |  |  |
| Wetland has an unconstricted, or slightly constricted, surface   |                 |               |  |  |
| outlet that is permanently flowing   | points = 0      |               |  |  |
| D 4.2. <u>Depth of storage during wet periods</u> : <i>Estimate the height of ponding above t</i>  | he bottom       |               |  |  |
| of the outlet. For wetlands with no outlet, measure from the surface of permanent w  | 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             |  |  |
| $\square$ 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 it (6 in)   | points = 0      |               |  |  |
| D 4.3. Contribution of the wetland to storage in the watershed. Estimate the ratio of the wetland unit                                     |                 |               |  |  |
| $\Box$ The area of the basin is less than 10 times the area of the unit  | nointe = 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      |               |  |  |
| $\Box$ Entire wetland is in the Elats class  | points = $5$    |               |  |  |
| Total for D 4 Add the points in the h  | poxes above     | 7             |  |  |
| <b>Rating of Site Potential</b> If score is: $\square$ 12 - 16 = H $\square$ 6 - 11 = M $\square$ 0 - 5 = L <i>Record</i>                  | the rating on t | he first page |  |  |
| D 5.0. Does the landscape have the potential to support hydrologic function of the   | site?           | , ,           |  |  |
| D 5.1. Does the wetland unit receive stormwater discharges? Yes  | = 1 No = 0      | 1             |  |  |
| D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate $\alpha$   | excess runof    |               |  |  |
| Yes =  | = 1 No = 0      | 1             |  |  |
| D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive  |                 |               |  |  |
| human land uses (residential at >1 residence/ac, urban, commercial, agriculture, e   | etc.)?          | 0             |  |  |
| Yes =  | = 1 No = 0      |               |  |  |
| Total for D 5   Add the points in the b  | ooxes above     | 2             |  |  |
| <b>Rating of Landscape Potential</b> If score is: $\square$ 3 = H $\square$ 1 or 2 = M $\square$ 0 = L Record the rating on the first page |                 |               |  |  |
| D.6.0. Are the hydrologic functions provided by the site valuable to assist v?   |                 |               |  |  |

| 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 dea          | scription 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          |                        |                |
| <ul> <li>Flooding occurs in a sub-basin that is immediately down-</li> </ul>          |                        |                |
| gradient of unit.   | points = 2             | 0              |
| <ul> <li>Surface flooding problems are in a sub-basin farther</li> </ul>              |                        | 0              |
| down-gradient.  | points = 1             |                |
| Flooding from groundwater is an issue in the sub-basin.                               | points = 1             |                |
| The existing or potential outflow from the wetland is so                              |                        |                |
| constrained by human or natural conditions that the water stored                      |                        |                |
| by the wetland cannot reach areas that flood. Explain why                             | points = 0             |                |
| There are no problems with flooding downstream of the wetland.                        | points = 0             |                |
| D 6.2. Has the site been identified as important for flood storage or flood           |                        | 0              |
| conveyance in a regional flood control plan?  | Yes = 2 No = 0         | •              |
| Total for D 6 Add the points i  | n the boxes above      | 0              |
| Pating of Value If score is: $\Box 2 A = \Box \Box 1 = M \Box 0 = I$                  | Pecard the rating on t | the first name |

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

| These questions apply to wetlands of all HGM classes.   |   |  |
|---|---|--|
| HABITAT FUNCTIONS - Indicators that site functions to provide important habitat   |   |  |
| H 1.0. Does the site have the potential to provide habitat?   |   |  |
| H 1.1. Structure of plant community: <i>Indicators are Cowardin classes and strata within the</i><br><i>Forested class.</i> Check the Cowardin plant classes in the wetland. Up to 10 patches may be<br>combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is<br>smaller than 2.5 ac. Add the number of structures checked.   |   |  |
| <ul> <li>☐ Aquatic bed</li> <li>4 structures or more: points = 4</li> <li>☐ Emergent</li> <li>3 structures: points = 2</li> <li>☑ Scrub-shrub (areas where shrubs have &gt; 30% cover)</li> <li>2 structures: points - 1</li> <li>☐ Forested (areas where trees have &gt; 30% cover)</li> <li>1 structure: points = 0</li> <li>If the unit has a Forested class, check if:</li> <li>☐ 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</li> </ul> | 0 |  |
| H 1.2. Hydroperiods<br>Check the types of water regimes (hydroperiods) present within the wetland. The water regime<br>has to cover more than 10% of the wetland or ¼ ac to count ( <i>see text for descriptions of</i><br><i>hydroperiods</i> ).   |   |  |
| <ul> <li>Permanently flooded or inundated</li> <li>Seasonally flooded or inundated</li> <li>Seasonally flooded or inundated</li> <li>Occasionally flooded or inundated</li> <li>Stypes present: points = 2</li> <li>Occasionally flooded or inundated</li> <li>Stypes present: points = 1</li> <li>Saturated only</li> <li>Permanently flowing stream or river in, or adjacent to, the wetland</li> <li>Seasonally flowing stream in, or adjacent to, the wetland</li> <li>Lake Fringe wetland</li> </ul>   | 1 |  |
| □ Freshwater tidal wetland 2 points   |   |  |
| H 1.3. Richness of plant species<br>Count the number of plant species in the wetland that cover at least 10 ft <sup>2</sup> .<br>Different patches of the same species can be combined to meet the size threshold and you do<br>not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple<br>loosestrife, Canadian thistle<br>If you counted: > 19 species points = 2<br>5 - 19 species points = 1<br>< 5 species points = 0  | 0 |  |
| H 1.4. Interspersion of habitats<br>Decide from the diagrams below whether interspersion among Cowardin plants classes<br>(described in H 1.1), or the classes and unvegetated areas (can include open water or<br>mudflats) is high, moderate, low, or none. <i>If you have four or more plant classes or three</i><br><i>classes and open water, the rating is always high.</i><br>None = 0 points<br>Low = 1 point<br>All three<br>diagrams in this<br>row are HIGH = 3<br>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.   |   |
| $\Box$ 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)  | 0 |
| □ Stable steep banks of fine material that might be used by beaver or muskrat for       |   |
| denning (> 30 degree slope) OR signs of recent beaver activity are present ( <i>cut</i> |   |
| 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        |   |
| □ Invasive plants cover less than 25% of the wetland area in every stratum of plants    |   |
| (see H 1.1 for list of strata)  |   |
| Total for H 1 Add the points in the boxes above   | 1 |

Total for H 1Add the points in the boxes above1Rating of Site Potential If Score is:15 - 18 = H7 - 14 = M0 - 6 = LRecord 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 ab                           | outs wetland unit).                    |    |
| Calculate:  |  |    |
| 0 % undisturbed habitat + 1 % moderate  | & low intensity land uses / 2)= 0.5%   |    |
|   |  |    |
| If total accessible habitat is:   |  | 0  |
| > <sup>1</sup> / <sub>3</sub> (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 wetla                               | and.                                   |    |
| Calculate:  |  |    |
| 0 % undisturbed habitat + 5 % moderate  | & low intensity land uses / 2 ) = 2.5% |    |
|   |  | 0  |
| Undisturbed habitat > 50% of Polygon  | points = 3                             | Ū  |
| 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      | -2 |

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

| H 3.0. Is the habitat provided by the site valuable to society?                            |                |
|--|----------------|
| H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? |                |
| Choose only the highest score that applies to the wetland being rated.                     |                |
| Site meets ANY of the following criteria: points = 2                                       |                |
| It has 3 or more priority habitats within 100 m (see next page)                            |                |
| It provides habitat for Threatened or Endangered species (any                              |                |
| plant or animal on the state or federal lists)   |                |
| It is mapped as a location for an individual WDFW priority species                         | 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 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
- **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 thev are addressed elsewhere.

# **CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

| Wetland  | Туре  | Category |
|----------|---|----------|
|          |   |          |
| Check of | t any criteria that apply to the wetland. List the category when the appropriate criteria are met.  |          |
| 56 1.0.  | Estuarine wetlands  |          |
|          | The dominant water regime is tide   |          |
|          | Vegetated and   |          |
|          | With a salinity greater than 0.5 ppt  |          |
|          | $\Box \text{ Vec } Go \text{ to } \mathbf{SC} 1 1 \qquad \Box \text{ Not an octuaring wotland}$     |          |
| 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?   |          |
|          | $\Box \text{ Yes} = \text{Category } \Box \text{ No} - \text{Go to } \text{SC 1 2}$                 |          |
| 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 $\frac{3}{4}$ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or |          |
|          | un-grazed or un-mowed grassland.  |          |
|          | The wetland 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 <b>SC 2.2</b> □No - Go to <b>SC 2.3</b>   |          |
| 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                                      |          |
|          | $\Box$ Yes - Contact WNHP/WDNR and to SC 2.4 $\Box$ No = Not WHCV                                   |          |
| SC 2.4.  | Has WDNR identified the wetland within the S/I/R as a Wetland of High                               |          |
|          | Conservation Value and listed it on their website?  |          |
|          | □ Yes = Category  |          |
| 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                     |          |
| SC 2 1   | rate the wetland based on its functions.  |          |
| 30 3.1.  | mucks, that compose 16 in or more of the first 32 in of the soil profile?                           |          |
|          | $\Box V_{\text{RS}} = \text{Go to SC 3.3} \qquad \Box \text{No}_{-} \text{Go to SC 3.2}$            |          |
| SC 3 2   | Does an area within the wetland unit have organic soils either peats or mucks that                  |          |
| 00 0.2.  | are less than 16 in deep over bedrock or an impermeable bardpan such as clav 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 bod  |          |
| SC 3 3   | Does an area with peats or mucks have more than 70% cover of mosses at ground                       |          |
| 000.0.0  | level. AND at least a 30% cover of plant species listed in Table 4?                                 |          |
|          | ☐ Yes = Is a Category   bog   |          |
|          | <b>NOTE</b> : If you are uncertain about the extent of mosses in the understory, you may            |          |
|          | substitute that criterion by measuring the pH of the water that seeps into a hole dug               |          |
|          | at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are                |          |
|          | present, the wetland is a bog.  |          |
| SC 3.4.  | Is an area with peats or mucks forested (> 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   bog □No = Is not a bog  |          |

| SC 4.0.  | Forested Wetlands  |  |
|----------|--|--|
|          | Does the wetland have at least 1 contiguous acre of forest that meets one of these                 |  |
|          | criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If</i>      |  |
|          | you answer VFS 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                      |  |
|          | (dbn) exceeding 21 in (53 cm).   |  |
|          | ☐ Yes = Category   |  |
| 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)  |  |
|          | $\Box \text{ Yes - Go to SC 5.1} \qquad \Box \text{ o} = \text{Not a wetland in a coastal lagoon}$ |  |
| 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 % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, of            |  |
|          | un-grazed of un-mowed grassiand.   |  |
|          | The wetland is larger than $7_{10}$ ac (4350 ft <sup>-</sup> )                                     |  |
| 80.6.0   |  |  |
| 30 0.0.  | Is the wetland west of the 1889 line (also called the Western Boundary of Unland                   |  |
|          | Ownership or WBLO? If you answer yes you will still need to rate the wetland                       |  |
|          | based on its babitat functions   |  |
|          | In practical terms that means the following geographic areas:                                      |  |
|          | Long Beach Peninsula: Lands west of SR 103   |  |
|          | Gravland-Westport: Lands west of SR 105  |  |
|          | Ocean Shores-Copalis: Lands west of SR 115 and SR 109  |  |
|          | ☐ Yes - Go to SC 6.1 ☑ Io = 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             |  |
|          |  |  |
| Cotoria  | Yes = Category III ⊔No = Category IV   |  |
|          | y or weriand based on Special Characteristics  |  |
| n you ar | iswered no for all types, effer not Applicable on Summary Form                                     |  |



Project: West Seattle to Ballard Link Extension

Cowardin Class and 150-foot Buffer

Questions: D1.1, D1.3, D2.2, D4.1, D4.3,

#### WSE11

# Cowardin Class

- Palustrine Emergent
- Palustrine Scrub-Shrub
  - Palustrine Forested
- ----- Structures
- Contributing Basin
- Ordinary High Water Mark
- 150-foot Buffer
   Stream Thalweg

Figure WSE11

D5.2, D5.3, H1.1, H1.4



25 50

Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16

> Hydroperiods Questions: D1.4, H1.2

# Hydroperiods

Feet



Stream Thalweg Structures

Ordinary High Water Mark

Figure WSE Hydro







Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16 1 km Land Use Intensity Questions: H2.1, H2.2, H2.3

Figure WSE 1 km

Land Use Intensity
High
Moderate

Project Wetlands



Water Quality Atlas Map

Water Quality Atlas Map



# **RATING SUMMARY – Western Washington**

| Name of wetland (or ID #): WSE12   |                              | Date of site visit: | 3/6/2013 |
|--|------------------------------|---------------------|----------|
| Rated by B. O'Neill & T. McIntyre  | Trained by Ecology? ☑Yes □No | Date of training    | 2008     |
| HGM Class used for rating Riverine   | Wetland has multiple         | HGM classes?        | ∕es ☑No  |
| <b>NOTE: Form is not complete with out the figures requested</b> ( <i>figures can be combined</i> ).<br>Source of base aerial photo/maiESRI Aerial Laver |                              |                     |          |

**OVERALL WETLAND CATEGORY** III (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<br>Water Quality | Hydrologic      | Habitat   |      |
|---------------------------|----------------------------|-----------------|-----------|------|
|                           | List appr                  | ropriate rating | (H, M, L) |      |
| Site Potential            | L                          | L               | L         |      |
| Landscape Potential       | Н                          | М               | L         |      |
| Value                     | Н                          | L               | Н         | Tota |
| Score Based on<br>Ratings | 7                          | 4               | 5         | 16   |

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

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

| CHARACTERISTIC                     | Category |
|------------------------------------|----------|
| Estuarine                          |          |
| 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         | WSE12     |
| Hydroperiods   | H 1.2                | WSE Hydro |
| Ponded depressions   | R 1.1                | WSE12     |
| Boundary of area within 150 ft of the wetland (can be added to another figure) | R 2.4                | WSE12     |
| Plant cover of trees, shrubs, and herbaceous plants                            | R 1.2, R 4.2         | WSE12     |
| Width of unit vs. width of stream (can be added to another figure)             | R 4.1                | WSE12     |
| Map of the contributing basin  | R 2.2, R 2.3, R 5.2  | WSE Basin |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including      | H 2.1, H 2.2, H 2.3  | WSE 1km   |
| polygons for accessible habitat and undisturbed habitat                        |                      | WSE IKIII |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)  | R 3.1                | 303(d)    |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web)     | R 3.2, R 3.3         | TMDL      |

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 <b>dense</b> 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?

☑ 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).

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* 

□ 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:

4

| RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS   |                   |   |
|---|-------------------|---|
| Water Quality Functions - Indicators that the site functions to impro                                 | ove water quality | y |
| 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 sec<br>a flooding event: | iments during     |   |
| 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<br>Cowardin classes) | nt, <b>not</b>    |   |
| Trees or shrubs > $^{2}/_{3}$ area of the wetland   | points = 8        |   |
| $\Box$ Trees or shrubs > $\frac{1}{3}$ area of the wetland  | points = 6        | 0 |
| $\Box$ 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 th  | e boxes above     | 0 |

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

| R 2.0. Does the landscape have the potential to support the water quality f | unction of th | ne 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          |               |          | 1 |
| incorporated area?  | Yes = 1       | No = 0   | I |
| R 2.3. Does at least 10% of the contributing basin contain tilled fields,   |               |          | 0 |
| pastures, or forests that have been clearcut within the last 5 years?       | Yes = 1       | No = 0   | 0 |
| R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that  |               |          | 1 |
| generate pollutants?  | Yes = 1       | No = 0   | I |
| 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 Golf Course, roadways w/motor vehicle exhaust                 | Yes = 1       | No = 0   |   |
| Total for R 2 Add the points  | in the boxe   | es above | 5 |
|   |               |          |   |

Rating of Landscape Potential If score is: 3 - 6 = H 1 or 2 = M 0 = 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 of | or on              |          | 1              |
| a tributary that drains to one within 1 mi?                                 | Yes = 1            | No = 0   | I              |
| R 3.2. Is the wetland along a stream or river that has TMDL limits for      |                    |          | 1              |
| nutrients, toxics, or pathogens?  | Yes = 1            | No = 0   | I              |
| R 3.3. Has the site been identified in a watershed or local plan as imp     | ortant             |          |                |
| for maintaining water quality? (answer YES if there is a TMDL for the       |                    |          | 2              |
| drainage in which the unit is found)  | Yes = 2            | No = 0   |                |
| Total for R 3 Add the p   | oints in the boxes | above    | 4              |
| Rating of Value If score is: ☑ 2 - 4 = H □ 1 = M □ 0 = L                    | Record the ra      | ating on | the first page |

| RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS  | <u>)</u> |
|--|----------|
| Hydrologic Functions - Indicators that site functions to reduce flooding and stream er             | osion    |
| 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  | 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: <i>Treat large</i> |          |
| woody debris as forest or shrub. Choose the points appropriate for the best description            |          |
| (polygons need to have >90% cover at person height. These are <u>NOT Cowardin</u> classes).        |          |
| Forest or shrub for > $1/_3$ area OR emergent plants > $2/_3$ area points = 7                      | 0        |
| Forest or shrub for $> \frac{1}{10}$ area OR emergent plants $> \frac{1}{3}$ area points = 4       |          |
| Plants do not meet above criteria points = 0   |          |
| Total for R 4 Add the points in the boxes above  | 1        |

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

| R 5.0. Does the landscape have the potential to support th  | e hydrologic functions of the | site?   |   |
|---|-------------------------------|---------|---|
| R 5.1. Is the stream or river adjacent to the wetland downo | ut? Yes = 0                   | No = 1  | 1 |
| R 5.2. Does the up-gradient watershed include a UGA or ir   | corporated 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: 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                   | 0              |
| 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                   | 0              |
| Total for R 6 Add the points in the boxes above                               | 0              |
| Rating of Value If score is: 2 - 4 = H 1 = M 0 = L Record the rating or       | the first page |

6

Wetland name or number <u>WSE12</u>



| H 1 5 Special habitat features:   | 1 |
|---|---|
| Check the habitat features that are present in the wetland. The number of checks is the             |   |
| number of points.   |   |
| $\Box$ 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 ( <i>cut</i>             |   |
| shrubs or trees that have not yet weathered where wood is exposed)                                  |   |
| $\Box$ At least $\frac{1}{4}$ ac of thin-stemmed persistent plants or woody branches are present in |   |
| areas that are permanently or seasonally inundated (structures for egg-laying by                    |   |
| Invasive plants cover less than 25% of the wetland area in every stratum of plants                  |   |
| (see H 1.1 for list of strata)  |   |
| Total for H 1 Add the points in the boxes above   | 1 |

**Rating of Site Potential** If Score is:  $\Box$  15 - 18 = H  $\Box$  7 - 14 = M $\bigtriangledown$  0 - 6 = LRecord 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 abu                          | ts wetland unit ).                    |    |
| Calculate:  |                                       |    |
| 0 % undisturbed habitat + 0.7 % moderate &  | low intensity land uses / 2 ) = 0.35% |    |
|   |                                       |    |
| If total accessible habitat is:   |                                       | 0  |
| > <sup>1</sup> / <sub>3</sub> (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 wetlan                              | d.                                    |    |
| Calculate:  |                                       |    |
| 0 % undisturbed habitat + 5 % moderate &  | low intensity land uses / 2 ) = 2.5%  |    |
|   |                                       | 0  |
| Undisturbed habitat > 50% of Polygon  | points = 3                            | Ū  |
| 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      | -2 |

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < < 1 = 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                   | )                 |                |
| ☐ It provides habitat for Threatened or Endangered species (an                     | ý                 |                |
| plant or animal on the state or federal lists)                                     | -                 |                |
| Lit is mapped as a location for an individual WDFW priority sp                     | ecies             |                |
| ☐ 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 1 = M 0 = L Rect                              | ord 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
- **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 thev are addressed elsewhere.

9

## **CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

| Wetland  | I Туре  | Category |
|----------|---|----------|
| 01       |   |          |
| Check of | t any criteria that apply to the wetland. List the category when the appropriate criteria are met.                |          |
| 50 1.0.  | Estuarine wetlands  |          |
|          | The dominant water regime is tide   |          |
|          | Vegetated and   |          |
|          | With a salinity greater than 0.5 ppt  |          |
|          | $\Box \text{ Vec } Go \text{ to } \mathbf{SC} 1 1 \qquad \Box \text{ Not an octuaring wotland}$                   |          |
| 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 332-30-1512   |          |
|          | $\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} - \text{Go to } \text{SC 1.2}$                       |          |
| 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 <sup>3</sup> / <sub>4</sub> 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 Valu                                 |          |
|          | □ 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?  |          |
| 00.0.0   | □ Yes = Category   ⊡ No = Not WHCV  |          |
| 50 3.0.  | Bogs<br>Deep the wetland (or any part of the unit) meet both the criteria for soils and                           |          |
|          | vegetation in bogs? Use the key below If you answor VES 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 neats or                                  |          |
| 00 0.1.  | mucks, that compose 16 in or more of the first 32 in of the soil profile?   |          |
|          | $\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No - Go to SC 3.2}$   |          |
| SC 3 2   | Does an area within the wetland unit have organic soils, either peats or mucks, that                              |          |
| 000.2.   | are less than 16 in deep over bedrock, or an impermeable hardpan such as clav 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   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   bog □No = Is not a bog  |          |

| SC 4.0.   | Forested Wetlands   |  |
|-----------|---|--|
|           | Does the wetland have at least 1 contiguous acre of forest that meets one of these  |  |
|           | criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If  |  |
|           | you answer VES 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).  |  |
|           |   |  |
| 00.5.0    | $\square$ Yes = Category   $\square$ 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  |  |
|           | trequently, rocks   |  |
|           | I ne 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)   |  |
| 0054      | $\square$ Yes - Go to SC 5.1 $\square$ I = Not a wetland in a coastal lagoon  |  |
| SC 5.1.   | Does the wetland meet all of the following three conditions?  |  |
|           | The welland is relatively undisturbed (has no diking, ditching, ming, cultivation,  |  |
|           | grazing), and has less than 20% cover of aggressive, opportunistic plant species  |  |
|           | (see list of species on p. 100).<br>At least <sup>3</sup> / of the landward edge of the wetland has a 100 ft huffer of shrub forest, or |  |
|           | At least 74 of the fandward edge of the wetland has a 100 ft burlet of shirdb, forest, of   |  |
|           | The wetland is larger than $\frac{1}{2}$ as (4250 ft <sup>2</sup> )   |  |
|           | The wellaho is larger than $7_{10}$ at (4350 ft.)   |  |
| 50 6 0    |   |  |
| 30 0.0.   | Is the wetland west of the 1889 line (also called the Western Boundary of Unland  |  |
|           | Ownership or WBLIO 2 If you answer yes you will still need to rate the wetland  |  |
|           | based on its babitat functions  |  |
|           | In practical terms that means the following geographic areas:   |  |
|           | Long Beach Peninsula: Lands west of SR 103  |  |
|           | Gravland-Westport: Lands west of SR 105   |  |
|           | Ocean Shores-Conalis: Lands west of SR 115 and SR 109   |  |
|           | $\Box$ Yes - Go to SC 6.1 $\Box$ Io = 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 ar | nswered No for all types, enter "Not Applicable" on Summary Form  |  |



### **Cowardin Class**

Palustrine Emergent

- Palustrine Forested
  - Palustrine Scrub-Shrub

Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE12

- ----- Ordinary High Water Mark
- 150-foot Buffer
- Stream Thalweg



Figure WSE12





25 50

Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16

> Hydroperiods Questions: D1.4, H1.2

# Hydroperiods

Feet



Stream Thalweg Structures

Ordinary High Water Mark

Figure WSE Hydro







Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16 1 km Land Use Intensity Questions: H2.1, H2.2, H2.3

Figure WSE 1 km

Land Use Intensity
High
Moderate

Project Wetlands



Water Quality Atlas Map

Water Quality Atlas Map



# **RATING SUMMARY – Western Washington**

| Name of wetland (or ID #):             | WSE13 |                              | Date of site visit: | 2/10/2023 |
|--|-------|------------------------------|---------------------|-----------|
| Rated by B. O'Neill & T. McIr          | ntyre | Trained by Ecology? ☑Yes □No | Date of training    | 2008      |
| HGM Class used for rating Depressional |       | Wetland has multiple         | e HGM classes? ☑    | Yes 🗌 No  |

NOTE: Form is not complete with out the figures requested (figures can be combined). Source of base aerial photo/ma<sub>l</sub>ESRI Aerial Layer

**OVERALL WETLAND CATEGORY** III (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<br>Water Quality        | Hydrologic | Habitat |      |
|---------------------------|-----------------------------------|------------|---------|------|
|                           | List appropriate rating (H, M, L) |            |         |      |
| Site Potential            | L                                 | L          | L       |      |
| Landscape Potential       | Н                                 | Н          | L       |      |
| Value                     | Н                                 | L          | Н       | Tota |
| Score Based on<br>Ratings | 7                                 | 5          | 5       | 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  | WSE13        |  |
| Hydroperiods  | D 1.4, H 1.2         | WSE Hydro    |  |
| Location of outlet (can be added to map of hydroperiods)                                | D 1.1, D 4.1         | WSE13        |  |
| Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> ) | D 2.2, D 5.2         | WSE13        |  |
| Map of the contributing basin   | D 4.3, D 5.3         | WSE13        |  |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including               | H 2.1, H 2.2, H 2.3  | WSE 1 km     |  |
| polygons for accessible habitat and undisturbed habitat                                 |                      | VV SE T KIII |  |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)           | D 3.1, D 3.2         | 303(d)       |  |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web)              | D 3.3                | TMDL         |  |

#### **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 ( <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?

☑ 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).

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* 

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:

| DEPRESSIONAL AND FLATS WETLANDS  |   |   |  |
|--|---|---|--|
| Water Quality Functions - Indicators that the site functions to improve              | Water Quality Functions - Indicators that the site functions to improve water quality |   |  |
| D 1.0. Does the site have the potential to improve water quality?                    |   |   |  |
| D 1.1. Characteristics of surface water outflows from the wetland:                   |   |   |  |
| Wetland is a depression or flat depression (QUESTION 7 on key)                       |   |   |  |
| with no surface water leaving it (no outlet).  | points = 3  |   |  |
| Wetland has an intermittently flowing stream or ditch, OR highly                     |   |   |  |
| constricted permanently flowing outlet.  | points = 2  | 2 |  |
| Wetland has an unconstricted, or slightly constricted, surface                       |   |   |  |
| outlet that is permanently flowing   | points = 1  |   |  |
| Wetland is a flat depression (QUESTION 7 on key), whose outlet                       |   |   |  |
| is a permanently flowing ditch.  | points = 1  |   |  |
| D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true          |   | 0 |  |
| organic (use NRCS definitions). Yes =  | 4 No = 0  | 0 |  |
| D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, | and/or  |   |  |
| Forested Cowardin classes):  |   |   |  |
| Wetland has persistent, ungrazed, plants > 95% of area                               | points = 5  | 2 |  |
| Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area                     | points = 3  | 3 |  |
| Wetland has persistent, ungrazed plants > $^{1}/_{10}$ 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                      | ,<br>points = 0   |   |  |
| Total for D 1 Add the points in the b  | oxes above  | 5 |  |

Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = LRecord 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   | I |
| D 2.3. Are there septic systems within 250 ft of the wetland?                                   | Yes = 1         | No = 0   | 0 |
| D 2.4. Are there other sources of pollutants coming into the wetland that                       | t               |          |   |
| are not listed in questions D 2.1 - D 2.3?  |                 |          | 1 |
| Source Nearby industry and residential lawns  | Yes = 1         | No = 0   |   |
| Total for D 2 Add the poi   | nts in the boxe | es above | 3 |
| Rating of Landscape Potential If score is 3 or 4 = H 1 or 2 = 1 0 Record the rating on t        |                 |          |   |

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

| river, 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 resou   | rce is on the 303(c | l) list?  | 1              |
|  | Yes = 1             | No = 0    | I              |
| D 3.3. Has the site been identified in a watershed or local plan as im | portant             |           |                |
| for maintaining water quality (answer YES if there is a TMDL for the   | basin               |           | 2              |
| in which the unit is found)?   | Yes = 2             | No = 0    |                |
| Total for D 3 Add the  | points in the boxe  | s above   | 4              |
| Rating of Value If score is: 2 - 4 = H 1 = M 0 = L                     | Record the          | rating on | the first page |

| DEPRESSIONAL AND FLATS WETLANDS   |                 |                      |
|---|-----------------|----------------------|
| Hydrologic Functions - Indicators that the site functions to reduce flooding an   | nd stream deg   | radation             |
| 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 $= 1$    |                      |
| authet thet is normanisativ flowing   | nainta - O      |                      |
| D 4.2 Depth of storage during wet periods: Estimate the height of ponding above t   | the bottom      |                      |
| of the outlet. For wetlands with no outlet, measure from the surface of permanent i   | water or if     |                      |
| dry the deenest nart  |                 |                      |
| 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                    |
| $\Box$ 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   | f the area      |                      |
| of upstream basin contributing surface water to the wetland to the area of the wetla  | and unit        |                      |
| ☐ The area of the basin is less than 10 times the area of the unit  | points = 5      | 0                    |
| The area of the basin is 10 to 100 times the area of the unit   | points = 3      | U U                  |
| The area of the basin is more than 100 times the area of the unit   | points = $0$    |                      |
| L Entire wetland is in the Flats class  | points = 5      |                      |
| I otal for D 4     Add the points in the b  | ooxes above     | 2                    |
| <b>Rating of Site Potential</b> If score is: $\Box$ 12 - 16 = H $\Box$ 6 - 11 = M $\Box$ 0 - 5 = L <i>Record</i>  | the rating on t | he first page        |
| D 5.0. Does the landscape have the potential to support hydrologic function of the  | site?           |                      |
| D 5.1. Does the wetland unit receive stormwater discharges? Yes:  | = 1 No = 0      | 1                    |
| D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate   | excess runof    | 1                    |
| Yes:  | = 1 No = 0      |                      |
| D 5.3. Is more than 25% of the contributing basin of the wetland covered with inter   |                 | 4                    |
| numan iand uses (residential at >1 residence/ac, urban, commercial, agriculture, e  | = 1 No $= 0$    | I                    |
| Tetal for D 5   |                 | 2                    |
|   |                 | J<br>h a final na na |
| Rating of Landscape Potential II score is: $\bigcirc 3 = H \bigcirc 1$ of $2 = M \bigcirc 0 = L$ Record   | the rating on t | ne first page        |
| D 6.0. Are the hydrologic functions provided by the site valuable to society?   | n that haat     |                      |
| D 6.1. <u>The unit is in a landscape that has nooding problems</u> . Choose the description metabolic sound the wetland unit being rated. Do not odd points. Choose |                 |                      |
| Inalches conditions around the welland unit being rated. Do not add points. <u>Choos</u>  |                 |                      |
| The wetland cantures surface water that would otherwise flow down-grad  | ient into       |                      |
| areas where flooding has damaged human or natural resources (e.g. hou   |                 |                      |
| <ul> <li>Flooding nas damaged numar of natural resources (e.g., not</li> <li>Flooding occurs in a sub-basin that is immediately down-</li> </ul>                    | 363 01          |                      |
| gradient of unit.   | points = $2$    |                      |
| <ul> <li>Surface flooding problems are in a sub-basin farther</li> </ul>  | Pointo 2        | 0                    |
| down-gradient.  | points = 1      |                      |
| ☐ Flooding from groundwater is an issue in the sub-basin.   | points = 1      |                      |
| The existing or potential outflow from the wetland is so  |                 |                      |
| constrained by human or natural conditions that the water stored  |                 |                      |
| by the wetland cannot reach areas that flood. Explain why   | points = 0      |                      |
| ☑ There are no problems with flooding downstream of the wetland.  | points = 0      |                      |
| ID 6.2. Has the site been identified as important for flood storage or flood  |                 | 0                    |

Yes = 2 No = 0

Add the points in the boxes above

conveyance in a regional flood control plan?

0

0

Record the rating on the first page



| 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)  | 2 |
| Stable steep banks of fine material that might be used by beaver or muskrat for         |   |
| denning (> 30 degree slope) OR signs of recent beaver activity are present (cut         |   |
| shrubs or trees that have not yet weathered where wood is exposed)                      |   |
| ☐ At least 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        |   |
| □ 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 |

Total for H 1Add the points in the boxes above3Rating of Site Potential If Score is:15 - 18 = H7 - 14 = M0 - 6 = LRecord 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 ab                           | outs wetland unit ).                 |    |
| Calculate:  |                                      |    |
| 0 % undisturbed habitat + 1 % moderate  | & low intensity land uses / 2)= 0.5% |    |
|   |                                      |    |
| If total accessible habitat is:   |                                      | 0  |
| > <sup>1</sup> / <sub>3</sub> (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 wetla                               | and.                                 |    |
| Calculate:  |                                      |    |
| 0 % undisturbed habitat + 5 % moderate & low intensity land uses / 2 ) = 2.5%             |                                      |    |
|   |                                      | 0  |
| 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 = $(-2)$                      | -2 |
| ≤ 50% of 1km Polygon is high intensity  | points = 0                           |    |
| Total for H 2   | Add the points in the boxes above    | -2 |

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

| H 3.0. Is the habitat provided by the site valuable to society?   |                |
|---|----------------|
| H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies?                              |                |
| Choose only the highest score that applies to the wetland being rated.  |                |
| Site meets ANY of the following criteria: points = 2  |                |
| ☑ It has 3 or more priority habitats within 100 m (see next page)   |                |
| It provides habitat for Threatened or Endangered species (any   |                |
| plant or animal on the state or federal lists)  |                |
| ☐ It is mapped as a location for an individual WDFW priority species  |                |
| 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: 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
- **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 thev are addressed elsewhere.

## **CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

| Wetland  | I Туре   | Category |  |
|--|--|----------|--|
|  | <b>.</b>   |          |  |
| Check of   | 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?   |          |  |
|  | Vereteted, and   |          |  |
|  | Vegetaled, and   |          |  |
|  | with a samily greater than 0.5 ppt $\Box$ Voc. Co to <b>SC 1.1</b> $\Box$ Not on optimizing wetland                  |          |  |
| 80.1.1   | Le the wotland within a National Wildlife Refuge National Park National Estuary                                      |          |  |
| 50 1.1.  | Beserve Netural Area Preserve. State Park or Educational Environmental or  |          |  |
|  | Scientific Posonia designated under WAC 332 30 1512  |          |  |
|  | Scientific Reserve designated under WAC 552-50-151?<br>$\Box Vec = Category I \Box No. Go to SC 12$                  |          |  |
| SC 1 2   | I have the wetland unit at least 1 ac in size and meets at least two of the following three conditions               |          |  |
|  | The wetland is relatively undisturbed (has no diking ditching filling cultivation                                    |          |  |
|  | grazing and has less than 10% cover of non-native plant species. (If non-native                                      |          |  |
|  | species are Sparting, see page 25)   |          |  |
|  | At least <sup>3</sup> / <sub>4</sub> 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 □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 IN 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.  | .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   bog $\Box$ No - Go to SC 3.4  |          |  |
|  | NULE: 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                                |          |  |
|  | access to indeep. If the pristiess than 5.0 and the plant species in Table 4 are                                     |          |  |
| SC 3 4   | present, the wetland is a bog.<br>Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalaine |          |  |
| fir western red cedar western hemlock Indoende nine duaking asnen 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 capony?   |          |  |
|  | $\Box Yes = Is a Category   bog \qquad \Box N_0 = Is not a hog$  |          |  |

| SC 4.0.   | Forested Wetlands   |  |
|-----------|---|--|
|           | Does the wetland have at least 1 contiguous acre of forest that meets one of these  |  |
|           | criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If  |  |
|           | you answer VFS 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).  |  |
|           | $\Box$ Vos - Category I. $\Box$ Io - Not a forested wetland for this section  |  |
| SC E O    | U fes - Calegory I ⊡NO - Not a lorested wetland for this section  |  |
| 30 5.0.   | Deep the wetland meet all of the following criteria of a wetland in a coastal large n?  |  |
|           | The wetland lies in a depression adjacent to marine waters that is whelly an partially  |  |
|           | The wetiand lies in a depression adjacent to manife waters that is whony or partially   |  |
|           | separated from marine waters by sandbanks, graver banks, shingle, or, less  |  |
|           | The Jacoon in which the wetland is located contains ponded water that is saline or  |  |
|           | brockish (> 0.5 ppt) during most of the year in at least a partian of the lagoon (neede   |  |
|           | brackish (> 0.5 ppl) during most of the year in at least a portion of the lagoon (needs   |  |
|           | to be measured near the boltom) $\Box$ Nos. Co to SC 5.4. $\Box$ be a Not o watland in a constal large $\Box$                           |  |
| SC 5 1    | $\square$ res - G0 to <b>SC 5.1</b> $\square$ <b>Not a weitand in a coastal lagoon</b>  |  |
|           | The wetland meet all of the following three conditions?   |  |
|           | are viewed and is relatively undisturbed (has no diking, ditching, finning, cultivation,  |  |
|           | (acciliat of aposics on p. 100)   |  |
|           | (see list of species of p. 100).<br>At least $\frac{3}{4}$ of the landward edge of the wetland has a 100 ft huffer of shrub, forest, or |  |
|           | un-grazed or un-mowed grassland   |  |
|           | The wetlend is larger than $\frac{1}{2}$ , as (4250 ft <sup>2</sup> )   |  |
|           | $\Box V_{00} = Category I \qquad \Box N_{0} = Category I$   |  |
| 80.6.0    |   |  |
| 30 0.0.   | Is the wetland west of the 1880 line (also called the Western Boundary of Unland  |  |
|           | Ownership or WBLIO 2 If you answer yes you will still need to rate the wetland  |  |
|           | based on its babitat functions  |  |
|           | In practical terms that means the following geographic areas:   |  |
|           | Long Beach Peningula: Lands west of SR 103  |  |
|           | Gravland-Westport: Lands west of SR 105   |  |
|           | Ocean Shores-Conalis: Lands west of SR 115 and SR 109   |  |
|           | $\Box$ Yes - Go to SC 6.1 $\Box$ Io = 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 ar | nswered No for all types, enter "Not Applicable" on Summary Form  |  |









# **Cowardin Class**

- Palustrine Emergent
- **Palustrine Forested** 
  - Palustrine Scrub-Shrub
- 150-foot Buffer Stream Thalweg

-

Structures

**Contributing Basin** 

Ordinary High Water Mark

Project: West Seattle to Ballard Link Extension WSE13

Cowardin Class and 150-foot Buffer Questions: D1.1, D1.3, D2.2, D4.1, D4.3, D5.2, D5.3, H1.1, H1.4

Figure WSE13


25 50

Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16

> Hydroperiods Questions: D1.4, H1.2

# Hydroperiods

Feet



Stream Thalweg Structures

Ordinary High Water Mark

Figure WSE Hydro







Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16 1 km Land Use Intensity Questions: H2.1, H2.2, H2.3

Figure WSE 1 km

Land Use Intensity
High
Moderate

Project Wetlands



Water Quality Atlas Map

Water Quality Atlas Map



# **RATING SUMMARY – Western Washington**

| Name of wetland (or ID #): WSE14   |                              | Date of site visit: | 2/10/2023 |
|--|------------------------------|---------------------|-----------|
| Rated by B. O'Neill & T. McIntyre  | Trained by Ecology? ☑Yes □No | Date of training    | 2008      |
| HGM Class used for rating Depressional   | Wetland has multiple         | HGM classes?        | Yes 🗹 No  |
| <b>NOTE: Form is not complete with out the figures requested</b> ( <i>figures can be combined</i> ).<br>Source of base aerial photo/majESRI Aerial Layer |                              |                     |           |

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

## 1. Category of wetland based on FUNCTIONS

|   | Category   - 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<br>Water Quality | Hydrologic     | Habitat   |      |
|---------------------------|----------------------------|----------------|-----------|------|
|                           | List appr                  | opriate rating | (H, M, L) |      |
| Site Potential            | L                          | М              | L         |      |
| Landscape Potential       | Н                          | М              | L         |      |
| Value                     | Н                          | L              | Н         | Tota |
| Score Based on<br>Ratings | 7                          | 5              | 5         | 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  | WSE14     |
| Hydroperiods   | D 1.4, H 1.2         | WSE Hydro |
| Location of outlet (can be added to map of hydroperiods)                       | D 1.1, D 4.1         | WSE14     |
| Boundary of area within 150 ft of the wetland (can be added to another figure) | D 2.2, D 5.2         | WSE14     |
| Map of the contributing basin  | D 4.3, D 5.3         | WSE14     |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including      | H 2.1, H 2.2, H 2.3  | WSE 1 km  |
| 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         | 303(d)    |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web)     | D 3.3                | TMDL      |

#### **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) □ 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).

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* 

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:

4

| DEPRESSIONAL AND FLATS WETLANDS   |     |  |
|---|-----|--|
| Water Quality Functions - Indicators that the site functions to improve water qua           | ity |  |
| 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                                    | 3   |  |
| Wetland has an intermittently flowing stream or ditch, OR highly                            |     |  |
| constricted permanently flowing outlet. points = 2  | 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  |     |  |
| 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                           | 5   |  |
| Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area points = 3                 | 3   |  |
| Wetland has persistent, ungrazed plants > $1/_{10}$ of area points =                        | 1   |  |
| Wetland has persistent, ungrazed plants $< 1/_{10}$ of area points =                        | D   |  |
| 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                  | 4 0 |  |
| Area seasonally ponded is $> \frac{1}{4}$ total area of wetland points = $\frac{1}{2}$      | 2   |  |
| Area seasonally ponded is $< \frac{1}{4}$ total area of wetland points = 0                  | )   |  |
| Total for D 1 Add the points in the boxes above   | e 5 |  |

Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = LRecord 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                      | t                |           | 1              |
| generate pollutants?  | Yes = 1          | No = 0    | I              |
| D 2.3. Are there septic systems within 250 ft of the wetland?                                   | Yes = 1          | No = 0    | 0              |
| D 2.4. Are there other sources of pollutants coming into the wetland that                       | t                |           |                |
| are not listed in questions D 2.1 - D 2.3?  |                  |           | 1              |
| Source Nearby industry and residential lawns  | Yes = 1          | No = 0    |                |
| Total for D 2 Add the poi   | ints in the boxe | s above   | 3              |
| Rating of Landscape Potential If score is 3 or 4 = H 1 or 2 = I                                 | 0 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

| river, 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 aqua                             | tic resource is on the 303(d) list? | 1              |
|   | Yes = 1 No = 0                      | 1              |
| D 3.3. Has the site been identified in a watershed or local p                           | lan as important                    |                |
| for maintaining water quality (answer YES if there is a TMD                             | 0L for the basin                    | 2              |
| in which the unit is found)?  | Yes = 2 No = 0                      |                |
| Total for D 3   | Add the points in the boxes above   | 4              |
| <b>Rating of Value</b> If score is: $\square$ 2 - 4 = H $\square$ 1 = M $\square$ 0 = L | Record the rating on                | the first page |

| DEPRESSIONAL AND FLATS WETLAN  | NDS  |   |
|--|--|---|
| Hydrologic Functions - Indicators that the site functions to reduce flooding   | ig and stream dec  | gradation   |
| 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. <u>Depth of storage during wet periods</u> : Estimate the height of ponding about the | ove the bottom   |   |
| of the outlet. For wetlands with no outlet, measure from the surface of perman   | ent water or if  |   |
| dry, the deepest part.   |  |   |
| Marks of ponding are 3 ft or more above the surface or bottom of ou  | tlet points = 7  |   |
| Marks of ponding between 2 ft to < 3 ft from surface or bottom of our  | tlet 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 wa  | ter 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 ra</i>   | tio of the area  |   |
| of upstream basin contributing surface water to the wetland to the area of the   | wetland unit   |   |
| $\Box$ 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   | 0   |
| The area of the basin is more than 100 times the area of the unit  | points = 0   |   |
| Entire wetland is in the Elete along   |  |   |
|  | points = 5   |   |
| Total for D 4     Add the points in the state class  | points = 5<br>the boxes above  | 8   |
| Image: ClassAdd the points in the Flats classTotal for D 4Add the points in the Flats classRating of Site Potential If score is: $12 - 16 = H \square 6 - 11 = M \square 0 - 5 = LRe$  | points = 5<br>the boxes above<br>ecord the rating on t   | <b>8</b><br>the first page  |
| ComparisonComparisonClassTotal for D 4Add the points in the Flats classRating of Site Potential If score is: $12 - 16 = H \bigcirc 6 - 11 = M \bigcirc 0 - 5 = LRetD 5.0. Does the landscape have the potential to support hydrologic function of$   | points = 5<br>the boxes above<br>ecord the rating on a<br>the site?  | <b>8</b><br>the first page  |
| Comparison   | points = 5<br>the boxes above<br>ecord the rating on the<br>the site?<br>Yes = 1 No = 0  | <b>8</b><br>the first page<br>1   |
| ComparisonComparisonClassTotal for D 4Add the points in the Flats classRating of Site Potential If score is: $12 - 16 = H \square 6 - 11 = M \square 0 - 5 = LRee$ D 5.0. Does the landscape have the potential to support hydrologic function ofD 5.1. Does the wetland unit receive stormwater discharges?D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generation  | points = 5<br>the boxes above<br>ecord the rating on to<br>the site?<br>Yes = 1 No = 0<br>rate excess runof  | 8<br>the first page   |
| ComparisonComparisonComparisonComparisonTotal for D 4Add the points in the Flats classRating of Site Potential If score is: $12 - 16 = H \ orgotomed flatD 5.0. Does the landscape have the potential to support hydrologic function ofD 5.1. Does the wetland unit receive stormwater discharges?D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generation$   | points = 5<br>the boxes above<br>ecord the rating on a<br>the site?<br>Yes = 1 No = 0<br>rate excess runof<br>Yes = 1 No = 0   | 8<br>the first page<br>1<br>1   |
| Total for D 4Add the points inRating of Site Potential If score is: $\square$ 12 - 16 = H $\square$ 6 - 11 = M $\square$ 0 - 5 = LReD 5.0. Does the landscape have the potential to support hydrologic function ofD 5.1. Does the wetland unit receive stormwater discharges?D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generD 5.3. Is more than 25% of the contributing basin of the wetland covered with   | points = 5<br>the boxes above<br>ecord the rating on a<br>the site?<br>Yes = 1 No = 0<br>rate excess runof<br>Yes = 1 No = 0<br>intensive  | 8<br>the first page<br>1<br>1   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       □ 12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agriculture)  | points = 5<br>the boxes above<br>ecord the rating on the site?<br>The site | 8<br>the first page<br>1<br>1<br>0  |
| Total for D 4Add the points in the Flats classTotal for D 4Add the points in the Plats classRating of Site Potential If score is: $\Box$ 12 - 16 = H $\bigtriangledown$ 6 - 11 = M $\Box$ 0 - 5 = LReD 5.0. Does the landscape have the potential to support hydrologic function ofD 5.1. Does the wetland unit receive stormwater discharges?D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generD 5.3. Is more than 25% of the contributing basin of the wetland covered withhuman land uses (residential at >1 residence/ac, urban, commercial, agricultur)   | points = 5<br>the boxes above<br>ecord the rating on the site?<br>Yes = 1 No = 0<br>rate excess runof<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0   | 8<br>the first page<br>1<br>1<br>0  |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       □ 12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agriculture)         Total for D 5       Add the points in  | points = 5<br>the boxes above<br>cord the rating on a<br>the site?<br>Yes = 1  No = 0<br>ate excess runof<br>Yes = 1  No = 0<br>intensive<br>re, etc.)?<br>Yes = 1  No = 0<br>the boxes above  | 8<br>the first page<br>1<br>1<br>0<br>2   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agriculture         Total for D 5       Add the points in         Rating of Landscape Potential If score is: □ 3 = H ☑ 1 or 2 = M □ 0 = L Re  | points = 5<br>the boxes above<br>ecord the rating on the<br>the site?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above<br>ecord the rating on the source of the sou   | 8<br>the first page<br>1<br>1<br>0<br>2<br>the first page   |
| Image: Total for D 4Add the points in the Flats classRating of Site Potential If score is: $12 - 16 = H 	ext{ Potential for D - 5 = LReferenceD 5.0. Does the landscape have the potential to support hydrologic function ofD 5.1. Does the wetland unit receive stormwater discharges?D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that genereD 5.3. Is more than 25% of the contributing basin of the wetland covered withhuman land uses (residential at >1 residence/ac, urban, commercial, agricultureTotal for D 5Rating of Landscape Potential If score is:D 6.0. Are the hydrologic functions provided by the site valuable to society?$  | points = 5<br>the boxes above<br>cord the rating on a<br>the site?<br>Yes = 1 No = 0<br>rate excess runof<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above  | 8<br>the first page<br>1<br>1<br>0<br>2<br>the first page   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agriculture         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑ 1 or 2 = M □ 0 = L Re         D 6.0. Are the hydrologic functions provided by the site valuable to society?       0 = 1. The unit is in a landscape that has flooding problems. Choose the desce   | points = 5<br>the boxes above<br>ecord the rating on a<br>the site?<br>Yes = 1 No = 0<br>rate excess runof<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above<br>ecord the rating on a<br>ription that best   | 8<br>the first page<br>1<br>1<br>0<br>2<br>the first page   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agriculture)         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑ 1 or 2 = M □ 0 = L Re         D 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 descematches conditions around the wetland unit being rated. Do not add points. Commencipal contexts.  | points = 5<br>the boxes above<br>ecord the rating on a<br>the site?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above<br>ecord the rating on a<br>ription that best<br>hoose the  | 8<br>the first page<br>1<br>1<br>0<br>2<br>the first page   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agricultur         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑ 1 or 2 = M □ 0 = L Re         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 desce matches conditions around the wetland unit being rated. Do not add points. Call highest score if more than one condition is met.   | points = 5<br>the boxes above<br>ecord the rating on a<br>the site?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above<br>ecord the rating on a<br>ription that best<br>hoose the  | 8<br>the first page<br>1<br>1<br>0<br>2<br>the first page   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agricultu         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑ 1 or 2 = M □ 0 = L Re         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 desce matches conditions around the wetland unit being rated. Do not add points. Commercial for the wetland captures surface water that would otherwise flow down-  | points = 5<br>the boxes above<br>ecord the rating on a<br>the site?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above<br>ecord the rating on a<br>ription that best<br>hoose the<br>gradient into  | 8<br>the first page<br>1<br>1<br>0<br>2<br>the first page   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑       6 - 11 = M□       0 - 5 = LRed         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generative stormwater discharges?         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agriculture)         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑       1 or 2 = M □       0 = L       Red         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 descert matches conditions around the wetland unit being rated. Do not add points. Context for the order of the order   | points = 5<br>the boxes above<br>ecord the rating on a<br>the site?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above<br>ecord the rating on a<br>ription that best<br>hoose the<br>gradient into<br>houses or   | 8<br>the first page<br>1<br>1<br>0<br>2<br>the first page   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑       6 - 11 = M□       0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?       Y         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generation       Y         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agriculture         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑       1 or 2 = M□       0 = L       Reference         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 descent matches conditions around the wetland unit being rated. Do not add points. Content for the wetland captures surface water that would otherwise flow down-areas where flooding has damaged human or natural resources (e.g., e. Flooding occurs in a sub-basin that is immediately down-   | points = 5<br>the boxes above<br>ecord the rating on a<br>tensite?<br>Yes = 1  No = 0<br>rate excess runof<br>Yes = 1  No = 0<br>intensive<br>re, etc.)?<br>Yes = 1  No = 0<br>the boxes above<br>ecord the rating on a<br>ription that best<br>hoose the<br>gradient into<br>houses or  | 8<br>the first page<br>1<br>1<br>0<br>2<br>the first page   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agricultu         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑ 1 or 2 = M □ 0 = L Re         D 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 descematches conditions around the wetland unit being rated. Do not add points. Commercial for D for the wetland captures surface water that would otherwise flow down-areas where flooding has damaged human or natural resources (e.g., Flooding occurs in a sub-basin that is immediately down-gradient of unit.   | points = 5<br>the boxes above<br>ecord the rating on a<br>the site?<br>Yes = 1 No = 0<br>rate excess runof<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above<br>ecord the rating on a<br>ription that best<br>hoose the<br>gradient into<br>houses or<br>points = 2  | 8<br>the first page<br>1<br>1<br>0<br>2<br>the first page   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agricultu         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑ 1 or 2 = M □ 0 = L Re         D 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 descematches conditions around the wetland unit being rated. Do not add points. Commercial areas where flooding has damaged human or natural resources (e.g., Flooding occurs in a sub-basin that is immediately down-gradient of unit.         □       ● Surface flooding problems are in a sub-basin farther  | points = 5<br>the boxes above<br>acord the rating on a<br>the site?<br>Yes = 1  No = 0<br>rate excess runof<br>Yes = 1  No = 0<br>intensive<br>re, etc.)?<br>Yes = 1  No = 0<br>the boxes above<br>acord the rating on a<br>ription that best<br>hoose the<br>gradient into<br>houses or<br>points = 2   | 8<br>the first page<br>1<br>1<br>0<br>2<br>the first page   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that genere         D 5.3. Is more than 25% of the contributing basin of the wetland covered with         human land uses (residential at >1 residence/ac, urban, commercial, agricultu         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑ 1 or 2 = M □ 0 = L Re         D 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 desc         matches conditions around the wetland unit being rated. Do not add points. Commercial context of the wetland captures surface water that would otherwise flow down-areas where flooding has damaged human or natural resources (e.g., • 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 = 5<br>the boxes above<br>ecord the rating on a<br>the site?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above<br>ecord the rating on a<br>ription that best<br>hoose the<br>gradient into<br>houses or<br>points = 2<br>points = 1  | 8the first page102the first page  |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of       D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener       D         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agricultu         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑ 1 or 2 = M □ 0 = L Re         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 descematches conditions around the wetland unit being rated. Do not add points. Commercial areas where flooding has damaged human or natural resources (e.g., e. 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.  | points = 5<br>the boxes above<br>ecord the rating on a<br>tensive<br>researcess runof<br>(res = 1 No = 0)<br>intensive<br>re, etc.)?<br>(res = 1 No = 0)<br>the boxes above<br>ecord the rating on a<br>ription that best<br>hoose the<br>gradient into<br>houses or<br>points = 2<br>points = 1<br>points = 1   | 81102the first page   |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑ 6 - 11 = M □ 0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of         D 5.1. Does the wetland unit receive stormwater discharges?         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that gener         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agricultur         Total for D 5       Add the points in         Rating of Landscape Potential If score is:       3 = H ☑ 1 or 2 = M □ 0 = L Re         D 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 descematches conditions around the wetland unit being rated. Do not add points. Commercial score if more than one condition is met.         The wetland captures surface water that would otherwise flow down-areas where flooding has damaged human or natural resources (e.g., e.g., e.g., 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.         □       Flooding or potential outflow from the wetland is so  | points = 5<br>the boxes above<br>ecord the rating on a<br>tensive<br>re, etc.)?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above<br>ecord the rating on a<br>ription that best<br>hoose the<br>gradient into<br>houses or<br>points = 2<br>points = 1<br>points = 1   | 8     the first page     1     0     2     the first page     0     2     0     2     0     2     0     2     0     2     0     0     2     0     0     0     2     0     0     0     0 |
| Total for D 4       Add the points in         Rating of Site Potential If score is:       12 - 16 = H ☑       6 - 11 = M □       0 - 5 = LRe         D 5.0. Does the landscape have the potential to support hydrologic function of       D 5.1. Does the wetland unit receive stormwater discharges?       Yestimum         D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that genere       Yestimum       Yestimum         D 5.3. Is more than 25% of the contributing basin of the wetland covered with human land uses (residential at >1 residence/ac, urban, commercial, agricultur       Yestimum         Total for D 5       Add the points in       Rating of Landscape Potential If score is:       3 = H ☑       1 or 2 = M □       0 = L       Re         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 descematches conditions around the wetland unit being rated. Do not add points. Commercial highest score if more than one condition is met.         The wetland captures surface water that would otherwise flow down-areas where flooding has damaged human or natural resources (e.g.,         • Flooding occurs in a sub-basin that is immediately down-gradient of unit.         □       • Surface flooding problems are in a sub-basin.         □       • Surface flooding problems are in a sub-basin.         □       • Surface flooding problems are in a sub-basin.         □       • Surface flooding problem   | points = 5<br>the boxes above<br>ecord the rating on a<br>tensive<br>re, etc.)?<br>Yes = 1 No = 0<br>intensive<br>re, etc.)?<br>Yes = 1 No = 0<br>the boxes above<br>ecord the rating on a<br>ription that best<br>hoose the<br>gradient into<br>houses or<br>points = 2<br>points = 1<br>points = 1   | 8     the first page     1     0     2     the first page     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)  | 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 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        |   |
| ☑ Invasive plants cover less than 25% of the wetland area in every stratum of plants    |   |
| (see H 1.1 for list of strata)  |   |
| Total for H 1 Add the points in the boxes above   | 6 |

Total for H 1Add the points in the boxes above6Rating of Site Potential If Score is:15 - 18 = H7 - 14 = M0 - 6 = LRecord 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 % moderate 8  | & low intensity land uses / 2 ) = 0.5% |    |  |
|   |  |    |  |
| If total accessible habitat is:   |  | 0  |  |
| > <sup>1</sup> / <sub>3</sub> (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                             | nd.                                    |    |  |
| Calculate:  |  |    |  |
| 0 % undisturbed habitat + 5 % moderate 8  | & low intensity land uses / 2 ) = 2.5% |    |  |
|   |  | 0  |  |
| 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      | -2 |  |

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

| H 3.0. Is the habitat provided by the site valuable to society?                            |                |
|--|----------------|
| H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? |                |
| Choose only the highest score that applies to the wetland being rated.                     |                |
| Site meets ANY of the following criteria: points = 2                                       |                |
| It has 3 or more priority habitats within 100 m (see next page)                            |                |
| It provides habitat for Threatened or Endangered species (any                              |                |
| plant or animal on the state or federal lists)   |                |
| It is mapped as a location for an individual WDFW priority species                         | 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 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
- **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 thev are addressed elsewhere.

# **CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

| Wetland  | I Туре  | Category |
|----------|---|----------|
| Chaok of | for waritaria that apply to the watland List the actor any when the appropriate aritaria are mat                              |          |
|          | rany criteria triat 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  |          |
|          | $\Box$ 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 <i>Spartina</i> , see page 25)  |          |
|          | 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 has at least two of the following features: tidal channels, depressions   |          |
|          | with open water, or contiguous treshwater wetlands.   |          |
| 00.0.0   |   |          |
| SC 2.0.  | Wetlands of High Conservation value (WHCV)<br>Has the WA Department of Natural Resources undated their website to include the |          |
| 30 2.1.  | list of Wetlands of High Conservation Value?  |          |
|          | $\square$ Yes - Go to SC 2.2 $\square$ 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   □ 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   |          |
| 0004     | 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 to in or more of the first 32 in of the soil profile? $\Box$ Vac. Co to SC 3.2                            |          |
| 6032     | Does an area within the wetland unit have organic soils, either neats or mucks, that  |          |
| 30 3.2.  | are less than 16 in deep over bedrock, or an impermeable bardnan such as clav 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 bod  |          |
| SC 3.3.  | Does an area with peats or mucks have more than 70% cover of mosses at ground   |          |
| 000.00   | level. AND at least a 30% cover of plant species listed in Table 4?   |          |
|          | □ Yes = Is a Category   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 Yes = Is a Category   bog □No = Is not a bog  |          |

| SC 4 0    | Forested Wetlands   |  |
|-----------|---|--|
| 00 110    | 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</i> |  |
|           | you answer VFS 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  |  |
| 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  |  |
| SC 5.1.   | Does the wetland meet all of the following three conditions?                                  |  |
|           | The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation,         |  |
|           | grazing), and has less than 20% cover of aggressive, opportunistic plant species              |  |
| _         | (see list of species on p. 100).  |  |
|           | At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or       |  |
|           | un-grazed or un-mowed grassland.  |  |
|           | The wetland is larger than $\frac{1}{10}$ ac (4350 ft <sup>-</sup> )                          |  |
|           | □ 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 Opland              |  |
|           | Ownership of WBOO)? 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.                                 |  |
|           | Gravland-Westnort: Lands west of SR 105   |  |
|           | Ocean Shores-Conalis: 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?   |  |
| 0-1       | □ Yes = Category III □No = Category IV  |  |
| Catego    | y of wetland based on Special Characteristics   |  |
| it you ar | nswered ind for all types, enter "Not Applicable" on Summary Form                             |  |



0

50



N

# Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension

## WSE14

## Cowardin Class

- Palustrine Emergent
  - Palustrine Forested
    - Palustrine Scrub-Shrub
- Contributing Basin
   Structures
   150-foot Buffer
   Stream Thalweg

Structures

Cowardin Class and 150-foot Buffer Questions: D1.1, D1.3, D2.2, D4.1, D4.3, D5.2, D5.3, H1.1, H1.4

Figure WSE14



25 50

Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16

> Hydroperiods Questions: D1.4, H1.2

# Hydroperiods

Feet



Stream Thalweg Structures

Ordinary High Water Mark

Figure WSE Hydro







Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16 1 km Land Use Intensity Questions: H2.1, H2.2, H2.3

Figure WSE 1 km

Land Use Intensity
High
Moderate

Project Wetlands



Water Quality Atlas Map

Water Quality Atlas Map



# **RATING SUMMARY – Western Washington**

| Name of wetland (or ID #): WSE15   |                              | Date of site visit: | 2/10/2013 |  |
|--|------------------------------|---------------------|-----------|--|
| Rated by B. O'Neill & T. McIntyre  | Trained by Ecology? ☑Yes □No | Date of training    | 2008      |  |
| 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).<br>Source of base aerial photo/maլESRI Aerial Layer |                              |                     |           |  |

**OVERALL WETLAND CATEGORY** III (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<br>Water Quality | Hydrologic     | Habitat   |      |
|---------------------------|----------------------------|----------------|-----------|------|
|                           | List appr                  | opriate rating | (H, M, L) |      |
| Site Potential            | L                          | L              | L         |      |
| Landscape Potential       | Н                          | М              | L         |      |
| Value                     | Н                          | L              | Н         | Tota |
| Score Based on<br>Ratings | 7                          | 4              | 5         | 16   |

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

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

| CHARACTERISTIC                     | Category |
|------------------------------------|----------|
| Estuarine                          |          |
| 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         | WSE15      |
| Hydroperiods   | H 1.2                | WSE Hydro  |
| Ponded depressions   | R 1.1                | WSE15      |
| Boundary of area within 150 ft of the wetland (can be added to another figure) | R 2.4                | WSE15      |
| Plant cover of trees, shrubs, and herbaceous plants                            | R 1.2, R 4.2         | WSE15      |
| Width of unit vs. width of stream (can be added to another figure)             | R 4.1                | WSE15      |
| Map of the contributing basin  | R 2.2, R 2.3, R 5.2  | WSE Basin  |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including      | H 2.1, H 2.2, H 2.3  | W/SE 1 km  |
| polygons for accessible habitat and undisturbed habitat                        |                      | WSE I KIII |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)  | R 3.1                | 303(d)     |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web)     | R 3.2, R 3.3         | TMDL       |

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 <b>dense</b> 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) □ 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).

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* 

□ 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:

4

| RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS  |               |   |  |
|--|---------------|---|--|
| Water Quality Functions - Indicators that the site functions to improve 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 sed a flooding event: | iments during |   |  |
| Depressions cover $> \frac{3}{4}$ area of wetland  | points = 8    | ٥ |  |
| 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 Cowardin classes) | t, <b>not</b> |   |  |
| Trees or shrubs > $^{2}/_{3}$ area of the wetland  | points = 8    |   |  |
| $\Box$ Trees or shrubs > $1/_3$ area of the wetland  | points = 6    | 0 |  |
| $\Box$ 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  | e boxes above | 0 |  |

Rating of Site Potential If score is: 12 - 16 = H - 6 - 11 = M - 0 - 5 = LRecord 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                              |            |         | 1 |
| incorporated area?  | Yes = 1    | No = 0  | I |
| R 2.3. Does at least 10% of the contributing basin contain tilled fields,                       |            |         | 0 |
| pastures, or forests that have been clearcut within the last 5 years?                           | Yes = 1    | No = 0  | 0 |
| R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that                      |            |         | 1 |
| generate pollutants?  | Yes = 1    | No = 0  | I |
| 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 Golf Course, roadways w/motor vehicle exhaust                                     | Yes = 1    | No = 0  |   |
| Total for R 2 Add the points i  | n the boxe | s above | 5 |
|   |            |         |   |

Rating of Landscape Potential If score is: 3 - 6 = H 1 or 2 = M 0 = 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 of | or on              |          | 1              |
| a tributary that drains to one within 1 mi?                                 | Yes = 1            | No = 0   | I              |
| R 3.2. Is the wetland along a stream or river that has TMDL limits for      |                    |          | 1              |
| nutrients, toxics, or pathogens?  | Yes = 1            | No = 0   | I              |
| R 3.3. Has the site been identified in a watershed or local plan as imp     | ortant             |          |                |
| for maintaining water quality? (answer YES if there is a TMDL for the       |                    |          | 2              |
| drainage in which the unit is found)  | Yes = 2            | No = 0   |                |
| Total for R 3 Add the p   | oints in the boxes | above    | 4              |
| Rating of Value If score is: ☑ 2 - 4 = H □ 1 = M □ 0 = L                    | Record the ra      | ating on | the first page |

| RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS  |   |  |
|--|---|--|
| Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion  |   |  |
| R 4.0. Does the site have the potential to reduce flooding and erosion?                      |   |  |
| R 4.1. Characteristics of the overbank storage the wetland provides:                         |   |  |
| Estimate the average width of the wetland perpendicular to the direction of the flow and the | l |  |
| width of the stream or river channel (distance between banks). Calculate the ratio: (average | 1 |  |
| width of wetland)/(average width of stream between banks).                                   | 1 |  |
| If the ratio is more than 20 points = 9  | 1 |  |
| If the ratio is 10 - 20 points = 6   | l |  |
| If the ratio is 5 - < 10 points = 4  | l |  |
| If the ratio is 1 - < 5 points = 2   | l |  |
| If the ratio is < 1 points = 1   |   |  |
| R 4.2. Characteristics of plants that slow down water velocities during floods: Treat large  |   |  |
| woody debris as forest or shrub. Choose the points appropriate for the best description      |   |  |
| (polygons need to have >90% cover at person height. These are <u>NOT Cowardin</u> classes).  |   |  |
| Forest or shrub for > $1/_3$ area OR emergent plants > $2/_3$ area points = 7                | 0 |  |
| Forest or shrub for $> 1/_{10}$ area OR emergent plants $> 1/_3$ area points = 4             | 1 |  |
| Plants do not meet above criteria points = 0   |   |  |
| Total for R 4 Add the points in the boxes above  | 1 |  |

Rating of Site Potential If score is: 12 - 16 = H and 6 - 11 = M one of a constant of the state of the stateo

| R 5.0. Does the landscape have the potential to support the hydr | rologic functions of the site? |     |
|--|--------------------------------|-----|
| R 5.1. Is the stream or river adjacent to the wetland downcut?   | Yes = 0 No = 1                 | l 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                 | I 0 |
| Total for R 5 Add  | the points in the boxes above  | e 2 |

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                   | 0                |
| resources (e.g., houses or salmon redds) points =                             | 2                |
| Surface flooding problems are in a sub-basin farther down-gradient points =   | 1                |
| No flooding problems anywhere downstream points =                             | D                |
| 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 =                     | D U              |
| Total for R 6 Add the points in the boxes abov                                | e <b>0</b>       |
| Rating of Value If score is: □ 2 - 4 = H □ 1 = M ☑ 0 = L Record the rating o  | n the first page |

6

Wetland name or number <u>WSE15</u>



| H 1.5. Special habitat features:  | 1 |
|---|---|
| Check the habitat features that are present in the wetland. The number of checks is the | 1 |
| number of points.   | 1 |
| $\Box$ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)   | 1 |
| $\Box$ 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 ( <i>cut</i> |   |
| shrubs or trees that have not yet weathered where wood is exposed)                      | 1 |
| ☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in      | 1 |
| areas that are permanently or seasonally inundated (structures for egg-laying by        | 1 |
| ☑ Invasive plants cover less than 25% of the wetland area in every stratum of plants    | 1 |
| (see H 1.1 for list of strata)  | L |
| Total for H 1 Add the points in the boxes above   | 2 |

**Rating of Site Potential** If Score is:  $\Box$  15 - 18 = H  $\Box$  7 - 14 = M $\bigtriangledown$  0 - 6 = LRecord 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 abu                          | ts wetland unit ).                    |    |
| Calculate:  |                                       |    |
| 0 % undisturbed habitat + 0.7 % moderate &  | low intensity land uses / 2 ) = 0.35% |    |
|   |                                       |    |
| If total accessible habitat is:   |                                       | 0  |
| > <sup>1</sup> / <sub>3</sub> (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 wetlan                              | d.                                    |    |
| Calculate:  |                                       |    |
| 0 % undisturbed habitat + 5 % moderate &  | low intensity land uses / 2 ) = 2.5%  |    |
|   |                                       | 0  |
| Undisturbed habitat > 50% of Polygon  | points = 3                            | Ū  |
| 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      | -2 |

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < < 1 = 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 priority habitats) | bage)                |                |
| It provides habitat for Threatened or Endangered species                       | s (any               |                |
| plant or animal on the state or federal lists)                                 |                      |                |
| ☐ It is mapped as a location for an individual WDFW priori                     | ty species           | 0              |
| It is a Wetland of High Conservation Value as determine                        | d 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 Plar                        | n, 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                                   | ,<br>points = 0      |                |
| Rating of Value If Score is: $\boxed{2}$ = H $\boxed{1}$ = M $\boxed{0}$ = 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
- **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 thev are addressed elsewhere.

9

## **CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

| Wetland  | I Туре   | Category |  |
|----------|--|----------|--|
|          |  |          |  |
| Check of | t any criteria that apply to the wetland. List the category when the appropriate criteria are met.                   |          |  |
| 50 1.0.  | Estuarine wetlands   |          |  |
|          | The deminent water regime is tidel   |          |  |
|          | Vegeteted and  |          |  |
|          | Vegetaleu, anu<br>With a salinity groater than 0.5 ppt   |          |  |
|          | with a samily greater than 0.5 ppt $\Box$ Voc. Co to <b>SC 1.1</b> $\Box$ Not on extremine 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 $WAC 332-30-1512$  |          |  |
|          | $\Box \text{ Yes} = \text{Category } I \qquad \Box \text{ No} - \text{Go to } \text{SC 1 2}$                         |          |  |
| 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 <sup>3</sup> / <sub>4</sub> 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 <b>SC 2.2</b> □No - Go to <b>SC 2.3</b>  |          |  |
| 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 I 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.  | 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?  |          |  |
|          | Ves = is a Category   bog UNO - Go to SC 3.4   |          |  |
|          | aubstitute thet exiterion by measuring the relief the water that econe into a bala during                            |          |  |
|          | substitute that offended by measuring the $p\pi$ of the water that seeps into a hole dug                             |          |  |
|          | access to indeep. If the pristiess than 5.0 and the plant species in Table 4 are                                     |          |  |
| SC 3.4   | present, the wellahu is a boy.<br>Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalging |          |  |
| 00 0.4.  | fir western red cedar western hemlock lodgenole nine guaking aspen. Engelmann  |          |  |
|          | spruce or western white nine AND any of the species (or combination of species)                                      |          |  |
|          | listed in Table 4 provide more than 30% of the cover under the canony?   |          |  |
|          | $\Box Yes = Is a Category   bog \qquad \Box N_0 = Is not a bog$  |          |  |

| SC 4.0.                          | Forested Wetlands   |  |  |  |  |
|----------------------------------|---|--|--|--|--|
|                                  | Does the wetland have at least 1 contiguous acre of forest that meets one of these  |  |  |  |  |
|                                  | criteria for the WA Department of Eish and Wildlife's forests as priority habitats? <b>If</b>   |  |  |  |  |
|                                  | you answer VES 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).  |  |  |  |  |
|                                  |   |  |  |  |  |
| 00.5.0                           | $\square$ Yes = Category   $\square$ 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  |  |  |  |  |
|                                  | trequently, rocks   |  |  |  |  |
|                                  | I ne 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)   |  |  |  |  |
| 0054                             | $\square$ Yes - Go to SC 5.1 $\square$ I = Not a wetland in a coastal lagoon  |  |  |  |  |
| SC 5.1.                          | Does the wetland meet all of the following three conditions?  |  |  |  |  |
|                                  | The welland is relatively undisturbed (has no diking, ditching, ming, cultivation,  |  |  |  |  |
|                                  | grazing), and has less than 20% cover of aggressive, opportunistic plant species  |  |  |  |  |
|                                  | (see list of species on p. 100).<br>At least <sup>3</sup> / of the landward edge of the wetland has a 100 ft huffer of shrub forest, or |  |  |  |  |
|                                  | At least 74 of the fandward edge of the wetland has a 100 ft burlet of shirdb, forest, of   |  |  |  |  |
| un-grazed or un-mowed grassiand. |   |  |  |  |  |
|                                  | The wellaho is larger than $7_{10}$ at (4350 ft.)   |  |  |  |  |
| 50 6 0                           |   |  |  |  |  |
| 30 0.0.                          | Is the wetland west of the 1889 line (also called the Western Boundary of Unland  |  |  |  |  |
|                                  | Ownership or WBLIO 2 If you answer yes you will still need to rate the wetland  |  |  |  |  |
|                                  | based on its babitat functions  |  |  |  |  |
|                                  | In practical terms that means the following geographic areas:   |  |  |  |  |
|                                  | Long Beach Peninsula: Lands west of SR 103  |  |  |  |  |
|                                  | Gravland-Westport: Lands west of SR 105   |  |  |  |  |
|                                  | Ocean Shores-Conalis: Lands west of SR 115 and SR 109   |  |  |  |  |
|                                  | $\Box$ Yes - Go to SC 6.1 $\Box$ Io = 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 ar                        | nswered No for all types, enter "Not Applicable" on Summary Form  |  |  |  |  |



0

50



Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE15

Structures

150-foot Buffer

Stream Thalweg

Ordinary High Water Mark

# **Cowardin Class**

- Palustrine Emergent
  - **Palustrine Forested**
- Palustrine Scrub-Shrub

# Figure WSE15

Questions: H1.1, H1.2, H1.4, R1.1,

R1.2, R2.4, R4.1, R4.2

Cowardin Class and 150-foot Buffer





25 50

Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16

> Hydroperiods Questions: D1.4, H1.2

# Hydroperiods

Feet



Stream Thalweg Structures

Ordinary High Water Mark

Figure WSE Hydro







Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16 1 km Land Use Intensity Questions: H2.1, H2.2, H2.3

Figure WSE 1 km

Land Use Intensity
High
Moderate

Project Wetlands



Water Quality Atlas Map

Water Quality Atlas Map



# **RATING SUMMARY – Western Washington**

| Name of wetland (or ID #): WSE16                             |   | Date of site visit: | 2/10/2013 |
|--|---|---------------------|-----------|
| Rated by B. O'Neill & T. McIntyre                            | Trained by Ecology? ☑Yes □No  | Date of training    | 2008      |
| HGM Class used for rating Riverine Wetland has multiple      |   | HGM classes?        | Yes 🗹 No  |
| NOTE: Form is not complete with<br>Source of base aerial pho | <b>out the figures requested</b> ( <i>figures ca</i><br>oto/ma <sub>l</sub> ESRI Aerial Layer | an be combined ).   |           |

**OVERALL WETLAND CATEGORY** III (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<br>Water Quality | Hydrologic      | Habitat   |      |
|---------------------------|----------------------------|-----------------|-----------|------|
|                           | List appr                  | ropriate rating | (H, M, L) |      |
| Site Potential            | L                          | L               | L         |      |
| Landscape Potential       | Н                          | М               | L         |      |
| Value                     | Н                          | L               | Н         | Tota |
| Score Based on<br>Ratings | 7                          | 4               | 5         | 16   |

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

## 2. Category based on SPECIAL CHARACTERISTICS of wetland

| CHARACTERISTIC                     | Category |
|------------------------------------|----------|
| Estuarine                          |          |
| 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         | WSE16        |
| Hydroperiods   | H 1.2                | WSE Hydro    |
| Ponded depressions   | R 1.1                | WSE16        |
| Boundary of area within 150 ft of the wetland (can be added to another figure) | R 2.4                | WSE16        |
| Plant cover of trees, shrubs, and herbaceous plants                            | R 1.2, R 4.2         | WSE16        |
| Width of unit vs. width of stream (can be added to another figure)             | R 4.1                | WSE16        |
| Map of the contributing basin  | R 2.2, R 2.3, R 5.2  | WSE Basin    |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including      | H 2.1, H 2.2, H 2.3  | WSE 1 km     |
| polygons for accessible habitat and undisturbed habitat                        |                      | VV SE T KIII |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)  | R 3.1                | 303(d)       |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web)     | R 3.2, R 3.3         | TMDL         |

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 <b>dense</b> 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) □ 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).

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* 

□ 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:

4

| RIVERINE AND FRESHWATER TIDAL FRINGE W  | <b>ETLANDS</b>   |   |
|---|------------------|---|
| Water Quality Functions - Indicators that the site functions to impro                               | ve water quality | y |
| 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 a flooding event: | ments during     |   |
| Depressions cover $> \frac{3}{4}$ area of wetland   | points = 8       | ٥ |
| 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 Cowardin classes)  | t, <b>not</b>    |   |
| Trees or shrubs > $^{2}/_{3}$ area of the wetland   | points = 8       |   |
| $\Box$ Trees or shrubs > $^{1}/_{3}$ area of the wetland  | points = 6       | 0 |
| $\Box$ 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 the   | e boxes above    | 0 |

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

| R 2.0. Does the landscape have the potential to support the water qu     | uality function of th | ne 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       |                       |          | 1 |
| Incorporated area?   | Yes = 1               | No = 0   |   |
| R 2.3. Does at least 10% of the contributing basin contain tilled fields | S,                    |          | 0 |
| pastures, or forests that have been clearcut within the last 5 years?    | Yes = 1               | No = 0   |   |
| R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses t  | that                  |          | 1 |
| generate pollutants?   | Yes = 1               | No = 0   | I |
| 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 Golf course, roadway w/motor vehicle exh                   | aust Yes = 1          | No = 0   |   |
| Total for R 2 Add the  | points in the boxe    | s above  | 5 |
|  |                       |          |   |

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

| R 3.0. Is the water quality improvement provided by the site valuable                        | le to society?              |                |
|--|-----------------------------|----------------|
| R 3.1. Is the wetland along a stream or river that is on the 303(d) lis                      | t or on                     | 1              |
| a tributary that drains to one within 1 mi?  | Yes = 1 No = 0              |                |
| R 3.2. Is the wetland along a stream or river that has TMDL limits for                       | pr                          | 1              |
| nutrients, toxics, or pathogens?   | Yes = 1 No = 0              | I              |
| R 3.3. Has the site been identified in a watershed or local plan as in                       | nportant                    |                |
| for maintaining water quality? (answer YES if there is a TMDL for the                        | ne                          | 2              |
| drainage in which the unit is found )  | Yes = 2 No = 0              |                |
| Total for R 3 Add the  | e points in the boxes above | 4              |
| Rating of Value         If score is:         ☑         2 - 4 = H         I = M         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 e        | rosion |  |
| 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  | ) 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   | 2      |  |
| If the ratio is < 1 points = 1   |        |  |
| R 4.2. Characteristics of plants that slow down water velocities during floods: Treat large  |        |  |
| woody debris as forest or shrub. Choose the points appropriate for the best description      |        |  |
| (polygons need to have >90% cover at person height. These are <u>NOT Cowardin</u> classes).  |        |  |
| Forest or shrub for > $^{1}/_{3}$ area OR emergent plants > $^{2}/_{3}$ area points = $7$    | , 0    |  |
| 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  | 1      |  |

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

| R 5.0. Does the landscape have the potential to support the hydrologic fur | nctions of the | e 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 are    | a? 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 point  | s in the boxe  | s above | 2 |

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                   | 0              |
| resources (e.g., houses or salmon redds) points = 2                           |                |
| Surface flooding problems are in a sub-basin farther down-gradient points = 1 |                |
| No flooding problems anywhere downstream points = 0                           |                |
| 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                   | 0              |
| Total for R 6 Add the points in the boxes above                               | 0              |
| Rating of Value If score is: 2 - 4 = H 1 = M 2 0 = L Record the rating on     | the first page |

6

Wetland name or number <u>WSE16</u>



| H 1.5. Special habitat features:  | l |
|---|---|
| Check the habitat features that are present in the wetland. The number of checks is the | 1 |
| number of points.   | 1 |
| $\Box$ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)   | 1 |
| $\Box$ Standing snags (dbh > 4 in) within the wetland                                   | 1 |
| Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants          | 1 |
| extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the       | 1 |
| wetland, for at least 33 ft (10 m)  | 2 |
| Stable steep banks of fine material that might be used by beaver or muskrat for         | 1 |
| denning (> 30 degree slope) OR signs of recent beaver activity are present (cut         | 1 |
| shrubs or trees that have not yet weathered where wood is exposed)                      | 1 |
| ☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in      | 1 |
| areas that are permanently or seasonally inundated (structures for egg-laying by        | 1 |
| Invasive plants cover less than 25% of the wetland area in every stratum of plants      | 1 |
| (see H 1.1 for list of strata)  |   |
| Total for H 1 Add the points in the boxes above   | 3 |

Total for H 1Add the points in the boxes above3Rating of Site Potential If Score is:15 - 18 = H7 - 14 = M0 - 6 = LRecord 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 abu                          | ts wetland unit ).                    |    |
| Calculate:  |                                       |    |
| 0 % undisturbed habitat + 0.7 % moderate &  | low intensity land uses / 2 ) = 0.35% |    |
|   |                                       |    |
| If total accessible habitat is:   |                                       | 0  |
| > <sup>1</sup> / <sub>3</sub> (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 wetlan                              | d.                                    |    |
| Calculate:  |                                       |    |
| 0 % undisturbed habitat + 5 % moderate &  | low intensity land uses / 2 ) = 2.5%  |    |
|   |                                       | 0  |
| Undisturbed habitat > 50% of Polygon  | points = 3                            | Ū  |
| 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      | -2 |

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < < 1 = 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                   | e)                 |                |
| It provides habitat for Threatened or Endangered species (a                        | ny                 |                |
| plant or animal on the state or federal lists)                                     | -                  |                |
| ☐ It is mapped as a location for an individual WDFW priority s                     | pecies             | 0              |
| It is a Wetland of High Conservation Value as determined by                        | y the              | 2              |
| Department of Natural Resources  |                    |                |
| It has been categorized as an important habitat site in a local                    | al or              |                |
| regional comprehensive plan, in a Shoreline Master Plan, 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                  | 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
- **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 thev are addressed elsewhere.

### **CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

| Wetland   | I Туре   | Category |
|---|--|----------|
|   |  |          |
| Check of  | 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?                               |          |
|   | I ne dominant water regime is tidal,   |          |
|   | Vegetated, and   |          |
|   | with a salinity greater than 0.5 ppt   |          |
| 0011  | Lethe wetland within a National Wildlife Defuge National Dark National Eduard                      |          |
| 50 1.1.   | Is the wetland within a National Withine Refuge, National Park, National Estuary                   |          |
|   | Reserve, Natural Area Preserve, State Park of Educational, Environmental, of                       |          |
|   | Scientific Reserve designated under WAC 352-30-151? $\Box$ No. Co to SC 1.2                        |          |
| SC 1 2  | L 165 - Calegoly 1 L NO - GO to SC 1.2   |          |
|   | The wetland is relatively undisturbed (has no diking ditching filling cultivation                  | ,        |
|   | arazing and has less than 10% cover of non-native plant species. (If non-native                    |          |
|   | species are Sparting, see page 25)   |          |
|   | 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 has at least two of the following features: tidal channels, depressions                |          |
|   | with open water, or contiguous freshwater wetlands   |          |
|   | $\Box \text{ Yes} = \text{Category I} \qquad \Box \text{ No} = \text{Category I}$                  |          |
| 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                    |          |
| 002.1.  | 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   |          |
| 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.   | Bogs   |          |
|   | Does the wetland (or any part of the unit) meet both the criteria for soils and                    |          |
|   | vegetation in bogs? Use the key below. If you answer YES you will still need to                    |          |
|   | rate the wetland based on its functions.   |          |
| SC 3.1.   | Does an area within the wetland unit have organic soil horizons, either peats or                   |          |
|   | mucks, that compose 16 in or more of the first 32 in of the soil profile?                          |          |
|   | □ Yes - Go to SC 3.3 ☑ No - Go to SC 3.2   |          |
| SC 3.2.   | Does an area within the wetland unit have organic soils, either peats or mucks, that               |          |
|   | are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or                   |          |
|   | volcanic ash, or that are floating on top of a lake or pond?                                       |          |
|   | □ Yes - Go to <b>SC 3.3</b>  |          |
| SC 3.3.   | Does an area with peats or mucks have more than 70% cover of mosses at ground                      |          |
|   | level, AND at least a 30% cover of plant species listed in Table 4?                                |          |
|   | □ Yes = Is a Category   bog □ No - Go to SC 3.4  |          |
|   | <b>NOTE</b> : If you are uncertain about the extent of mosses in the understory, you may           |          |
|   | substitute that criterion by measuring the pH of the water that seeps into a hole dug              |          |
|   | at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are               |          |
|   | present, the wetland is a bog.   |          |
| SC 3.4.   | is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine                 |          |
|   | TIR, western red cedar, western nemiock, iodgepole 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   bog ⊥ino = 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? If  |  |
|           | you answer YES you will still need to rate the wetland based on its functions   |  |
|           | <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species,   |  |
|           | forming a multi-layered canopy with occasional small openings: with at least 8  |  |
|           | trees/ac (20 trees/ba) 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   ⊡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)   |  |
| 0054      | $\square$ Yes - Go to SC 5.1 $\square$ I o = Not a wetland in a coastal lagoon  |  |
| SC 5.1.   | Does the wetland meet all of the following three conditions?  |  |
|           | The welland is relatively undisturbed (has no diking, ditching, ming, cultivation,  |  |
|           | grazing), and has less than 20% cover of aggressive, opportunistic plant species  |  |
|           | (see list of species of p. 100).<br>At least <sup>3</sup> /, 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 $\frac{1}{2}$ as (4250 ft <sup>2</sup> )   |  |
|           | $\Box Vec = Category I \qquad \Box No = Category I$   |  |
| SC 6.0    |   |  |
| 50 0.0.   | Is the wetland west of the 1889 line (also called the Western Boundary of Upland  |  |
|           | Ownership or WBLIO)? 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 ☑ Io = 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 ar | iswered No for all types, enter "Not Applicable" on Summary Form  |  |



0

\_\_\_\_

50

100



## Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension

Structures

150-foot Buffer

Stream Thalweg

Ordinary High Water Mark

WSE16

### Cowardin Class

- Palustrine Emergent
  - Palustrine Forested
  - Palustrine Scrub-Shrub

Cowardin Class and 150-foot Buffer Questions: H1.1, H1.2, H1.4, R1.1, R1.2, R2.4, R4.1, R4.2

Figure WSE16





25 50

Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16

> Hydroperiods Questions: D1.4, H1.2

# Hydroperiods

Feet



Stream Thalweg Structures

Ordinary High Water Mark

Figure WSE Hydro







Wetland Rating for Western WA 2014 Update Project: West Seattle to Ballard Link Extension WSE 11, 12, 13, 14, 15, & 16 1 km Land Use Intensity Questions: H2.1, H2.2, H2.3

Figure WSE 1 km

Land Use Intensity
High
Moderate

Project Wetlands



Water Quality Atlas Map

Water Quality Atlas Map

