

# **Sewall Wetland Consulting, Inc.**

POBox 880 Fall City, WA 98024 Phone: 253-859-0515

May 16, 2024

Fowler Creek Trails LLC 1890 Nelson Siding Road Cle Elum, Washington 98922

RE: Critical Area Report – Fowler Creek Trails Kittitas County, Washington SWC Job #22-181

This report describes our observations of any jurisdictional wetlands, streams and/or buffers on or within 250' of the Fowler Creek Trails property, located in west of Fowler Creek Road in unincorporated Kittitas County, Washington.



Above: Vicinity Map of site



Above: Aerial photograph of the study area from Kittitas Mapsifter website.

Specifically, the site includes 35 existing parcels which include Parcels #382736, #785434, #949861, #949862, #949864, #949865 #949866, #949867, #949868, #949869, #949870, #949871, #949872, #949873, #949874, #949875, #954540, #954541, #954542, #17455, #949563, #949851, #949854, #949855, #949548, #954553, #954552, #954551, #954550, #954549, #954544, #954544, #954546, & #954547.

The site is approximately 85 acres in size located in the NE ¼ of Section 3, Township 19 North, Range 14 East of the W.M.

The site is accessed off Fowler Creek Road with a gravel access road extending west into the site.

#### **METHODOLOGY**

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site and areas within 250' of the site between October 10 and October 18, 2022.

The site was reviewed using methodology described in the **Regional Supplement to the Corps of Engineers Wetland Delineation Manual:** 

Arid West Region (Version 2.0) (USACOE September 2008) as required by the US Army Corps of Engineers starting in June of 2009. This is the methodology currently recognized by Kittitas County for wetland determinations and delineations. Soil colors were identified using the 1990 Edited and Revised Edition of the Munsell Soil Color Charts (Kollmorgen Instruments Corp. 1990.

Wetlands in Kittitas County are rated using the 2014 Washington State Department of Ecology Washington State *Wetland Rating System for Eastern Washington*, 2014 Update dated June 2014 Publication No. 14-06-018.

The ordinary high water mark (OHWM) of any streams was located based upon the criteria described in the Washington Department of Ecology publication *Determining The Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (WADOE Publication 16-06-029, March 2010 revised October 2016).

#### **OBSERVATIONS**

Existing Site Documentation.

Prior to visiting the site, a review of several natural resource inventory maps was conducted. Resources reviewed included the Kittitas Taxsifter website, National Wetland Inventory Map, WDNR Fpars Stream Typing Map, Kittitas County flood & critical areas mapping, WDFW Priority Habitats and Species Maps, and the NRCS Soil Survey online mapping and Data.

#### **Kittitas Taxsifter Website**

The Kittitas Taxsifter website with streams and wetland layers activated depicts a large (20+ acre) forested, scrub-shrub and emergent wetland across the north and east side of the site. Fowler Creek is depicted on the east side of the site along Fowler Creek Road and a Type N water is depicted south of the site. The site is outside any shoreline areas and has no floodplain areas either.



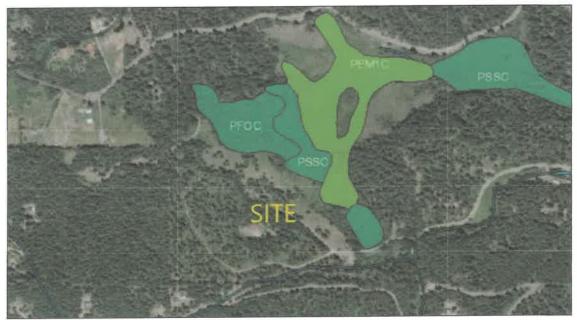
Above: Kittitas County Taxsifter with wetland and stream layers activated.



Above: Kittitas County Taxsifter with shoreline environment layer and floodplain activated.

## National Wetlands Inventory (NWI)

The NWI map depicts the same wetlands as depicted on the County Taxsifter website. The County map is taken from the NWI map these wetland areas were interpreted from aerial photographs by the US Fish and Wildlife Service using 2017 aerial photographs with no ground-truthing.



Above: NWI map of the area of the site

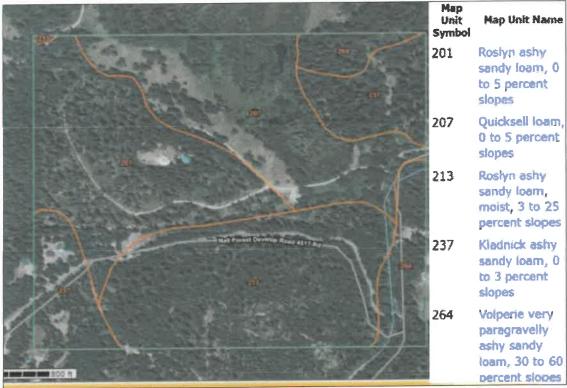
#### Soil Survey

According to the NRCS Soil Mapper website, the site is mapped as containing 4 different soil types including Roslyn ashy sandy loam, Quicksell loam, Kladnick ashy sandy loam, and Volperie paragravelly ashy gravelly loam.

Roslyn soils are well-drained soils formed in glacial drift and alluvium with a mantle of loess and volcanic ash. Quicksell soils are somewhat poorly drained soils formed on stream terraces in old alluvium. Kladnick soils are somewhat excessively drained soils formed in outwash with some volcanic ash. Volperie soils are well drained soils formed in schists with a mantle of volcanic ash.

None of these soil types are considered "hydric" or wetland soils according to the publication *Hydric Soils of the United States* (USDA NTCHS Pub No.1491, 1991).

It should be noted that Western Pacific did a detailed soil study of the area for the project and is mre accurate than the general mapping done by NRCS.



Above: NRCS soil map of the site.

#### WADNR FPARS website

According to the WADNR FPARS website with stream types layers activated, Fowler Creek on the east side of the site is depicted as a Type F water. There is also a Type N water depicted on the south side of the site.



Above: WDNR Fpars Stream Mapping of the area of the site.

## **WDFW Priority Species and Habitat Map**

The WDFW Priority Species and Habitat map of the area of the site indicates the site contains a wetland, as well as within the Township (light shading) where the Northern Spotted Owl and gray wolf habitat are known to exist. In addition several small rectangles are depicted as shrub steppe.

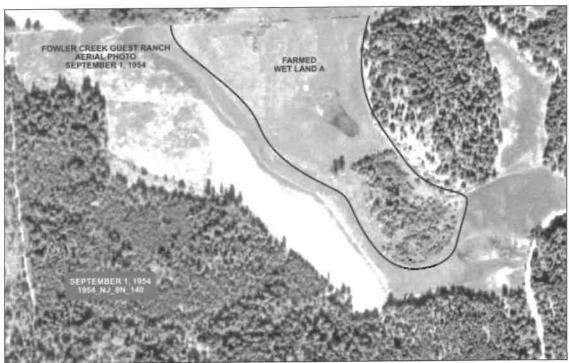
In discussions with WDFW, the applicant was informed that Gray Wolf packs may have wandered through this part of upper Kittitas County in the pats. However there are no current packs within range of the site. WDFW also stated that there are no Spotted Owl circles that overlap onto the site.



Above: WDFW Priority Habitat map of the site.

# 1954 Aerial Photograph of the site

A 1954 aerial photograph of the site obtained from Central Washington University depicts the site at that time as farmland, including almost all of the wetland.



Above: 1954 Aerial photograph of the site.

#### Field observations

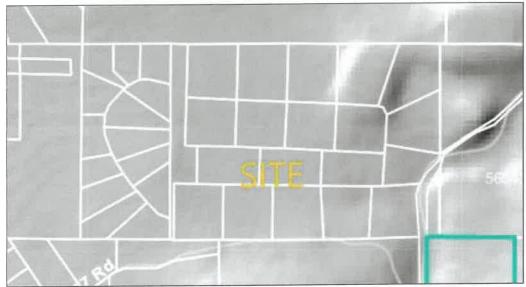
The site contains several gravel roads that pass through and round the site. A single-family home is located on Parcel #949870. There is also cleared lawn and open areas around this parcel. The north side of the site contains large pasture areas used to graze horses. This area has been in agricultural use for many years and contains several drainage and irrigation ditches passing along it. An excavated pond is located on the northeast side of the site within the large wetland area. Piped irrigation is present in the pastures as well as several potable water wells.

The site has a gentle slope to the north towards the wetland. A pronounced hill is located on the northeast corner of the site and contains small schist outcroppings.

The forested portions of the site include an overstory mix of douglas fir, ponderosa pine, tamarack, bitter cherry, shore pine and scattered white pine and tamarack. Much of the site appears to have a mix of planted species from past forest practice and replanting efforts. Understory

species include vine maple, oceanspray, Oregon grape, hawthorne, bracken fern and snowberry.

The pasture areas are a mix of typical pasture grasses consisting primarily of fescue, quackgrass and some timothy as well as weedy species like thistle, yarrow and tansy.



Above: Kittitas Taxsifter depiction of the site with the Lidar layer.

Soil pits excavated throughout the upland portions of the site revealed a dry gravelly, sandy loam with a colors ranging from 10YR 3/2-3/3. No evidence of wetland hydrology was present in the upland areas of the site.

#### Wetlands and Streams

A total of 3 wetlands were found to be on the site and one intermittent stream. In addition, Fowler Creek passes very close to the southeast corner of the site. The following is a description of these areas;

#### Wetland A

Wetland A consists of the south side of a large, forested, scrub-shrub and emergent wetland.

This wetland was flagged with pink wetland flagging labeled A1-A58 and from A1-AA1-AA6.

This wetland has been historically manipulated from past agricultural use as well as ditching, draining and the excavation and berming of a pond in a portion of the wetland. A large irrigation ditch passes along the south side of the wetland in the existing grazed pasture and is a hydrologic break in the feature and in portions of the site, defines the edge. The wetland is also bordered by the main access road into the site, as well as a second old roadbed/berm that extends onto the small hill in this area of the site.

The wetland outlets into a culvert at this roadbed on the east side of the site forming a ditched stream down to a small wetland along Fowler Creek Road (Wetland B).

The forested portions of the wetland contain black cottonwood, red alder, quacking aspen, and scattered western red cedar.

The scrub-shrub portion is comprised of alder saplings and sitka willow, as well a red-osier dogwood. The emergent portion is primarily reed canary grass with a mix of other species including small fruited bulrush, soft rush, timothy, skunk cabbage, hedge nettle, lady fern and several species of sedge.

Soil pits excavated within this wetland revealed a gravelly loam with a B-horizon matrix color of 10YR 3/2 with common, medium, distinct redoximorphic concentrations. Further in the wetland a sapric muck was encountered. Soils were saturated within 6" of the surface at the time of our site visit in the fall and in the center were saturated at the surface.

Using the US Fish and Wildlife Wetland Classification Method (Cowardin et al. 1979), Wetland B would be classified as PFO4C (palustrine, forested, needle leaved evergreen, seasonally flooded) and PSS1C (palustrine, scrub-shrub, broad leaved deciduous, seasonally flooded and PEM1C (palustrine, emergent, persistent seasonally flooded.

Wetland A was rated using the *WADOE Washington State Wetland Rating System for Eastern Washington 2014 update* (Publ No. 14-06-030). This wetland was rated as a depressional wetland and scored a total of 21

points with 9 points for habitat indicating a Category II wetland. According to Kittitas County Municipal Code Chapter 17A.07, Category II wetlands for a low impact land use such as gravel walking trails and open space on existing parcels construction of a single-family homes on existing parcels have a 100' buffer measured from the wetland edge

Table 17A.07.030: Standard Buffer Widths

| Category of Wetland | Land Use with<br>Low Impact <sup>1</sup> | Land Use with<br>Moderate Impact <sup>2</sup> | Land Use with<br>High Impact <sup>3</sup> |
|---------------------|--|---|---|
| 1                   | 125 ft                                   | 190 ft  | 250 ft                                    |
| 8                   | 100 ft                                   | 150 ft  | 200 ft                                    |
| 111                 | 75 ft                                    | 110 ft  | 150 ft                                    |
| IV                  | 25 ft                                    | 40 ft   | 50 ft                                     |

#### Stream A

Stream A is a ditched channel that exits the culvert draining out of the east end of Wetland A. This stream is 24" wide ditched feature that passes to the east towards Fowler Creek road where it runs along the west side of the road to the east offsite to where it presumably connects to Fowler Creek.

Stream A is a seasonal stream which has been appropriately mapped as a Type Ns water

According to KCMC 17A.04.030.4, Type Ns streams have a 50' buffer measured from the ordinary high water mark in the Cascade Ecoregion area of the county.

|                    | Riparian Managemer       | nt Zone Widths <sup>1,2</sup>        |
|--------------------|--------------------------|--------------------------------------|
|                    |                          |                                      |
| Stream Type        | Cascade Ecoregion (feet) | Columbia Plateau<br>Ecoregion (feet) |
| Type S (Shoreline) | See the SMP              | See the SMP                          |
| Type F             | 150                      | 100                                  |
| Type Np            | 100                      | 65                                   |
| Type Ns            | 50                       | 40                                   |

#### Wetland B

Wetland B consists of depressional and slope emergent and forested wetland located on the south side of the existing access roadbed. This wetland was flagged with pink flags B1-B13. This wetland is in the location of a mapped Type N water. However, no stream or stream channel is located in this area and appears to be an aerial photograph interpretation error.

The emergent portion of the wetland is a monotypic stand of reed canary grass with small amounts of small fruited bulrush, and the forested portion consist of small red alders and with little if any understory except some reed canary grass.

Soil pits excavated within this wetland revealed a gravelly loam with a B-horizon matrix color of 10YR 2/2 with common, fine, faint redoximorphic concentrations. The pits were saturated at -18" during our dry season review of this area.

Wetland B was rated using the *WADOE Washington State Wetland Rating System for Eastern Washington 2014 update* (Publ No. 14-06-030). This wetland was rated as a depressional wetland and scored a total of 19 points with 7 points for habitat indicating a Category II wetland. According to Kittitas County Municipal Code Chapter 17A.07, Category II wetlands for a moderate land use as it is assumed the water line

replacement would be considered, have a 150' buffer measured from the wetland edge.

Table 17A.07.030: Standard Buffer Widths

| Category of Wetland | Land Use with<br>Low Impact <sup>1</sup> | Land Use with<br>Moderate Impact <sup>2</sup> | Land Use with<br>High Impact <sup>3</sup> |
|---------------------|--|---|---|
| 1                   | 125 ft                                   | 190 ft  | 250 ft                                    |
| 11                  | 100 ft                                   | 150 ft  | 200 ft                                    |
| 111                 | 75 ft                                    | 110 ft  | 150 ft                                    |
| IV                  | 25 ft                                    | 40 ft   | 50 ft                                     |

#### **Fowler Creek**

Fowler Creek is located along the eastern edge of the site on the west side of Fowler Creek Road. The western OHWM of the creek facing the site was flagged with blue flagging labeled N1-N8.

The stream is approximately 48"-60" wide and meanders along the edge of Fowler Creek Road with a gravel and cobble bottom.

Fowler Creek is mapped as a Type F water on the Fpars map and this seems appropriate for this fish bearing stream.

According to KCMC 17A.04.030.4, Type F streams have a 150' buffer measured from the ordinary high water mark in the Cascade Ecoregion area of the county.

|                    | Riparian Managemer       | nt Zone Widths <sup>1,2</sup>        |
|--------------------|--------------------------|--------------------------------------|
|                    |                          |                                      |
| Stream Type        | Cascade Ecoregion (feet) | Columbia Plateau<br>Ecoregion (feet) |
| Type S (Shoreline) | See the SMP              | See the SMP                          |
| Type F             | 150                      | 100                                  |
| Type Np            | 100                      | 65                                   |
| Type Ns            | 50                       | 40                                   |

#### Wetland C

Wetland C is a small emergent and scrub-shrub wetland located along the west side of Fowler Creek Road and east of Wetland A. Stream A, which discharges water from Wetland A, passes through this wetland. The wetland was flagged with flags C1-C7. This wetland is located near some old excavations that were dry and appear to be old borrow pits or dry ponds.

The emergent portion of the wetland contains primarily reed canary grass. The perimeter scrub-shrub portion of te wetland is a mix of alder saplings, and red osier dogwood.

Soil pits excavated within this wetland revealed a gravelly loam with a soil color of 10YR 3/2 with few, fine, faint redoximorphic concentrations. Soils were saturated within 12" of the surface at the time of our site visit.

Using the US Fish and Wildlife Wetland Classification Method (Cowardin et al. 1979), Wetland C would be classified as PEM1C (palustrine, emergent, persistent, seasonally flooded) and PSS1C (palustrine, scrubshrub, broad leaved deciduous, seasonally flooded).

Wetland C was rated using the *WADOE Washington State Wetland Rating System for Eastern Washington 2014 update* (Publ No. 14-06-030). This wetland was rated as a depressional wetland and scored a total of 19 points with 8 points for habitat indicating a Category III wetland.

According to Kittitas County Municipal Code Chapter 17A.07, Category III wetlands for a moderate land use as it is assumed the water line replacement would be considered, have a 110' buffer measured from the wetland edge

| Table 17A | .07.030: | Standard | Buffer | Widths |
|-----------|----------|----------|--------|--------|
|-----------|----------|----------|--------|--------|

| Category of Wetland | Land Use with<br>Low Impact <sup>1</sup> | Land Use with<br>Moderate Impact <sup>2</sup> | Land Use with<br>High Impact <sup>3</sup> |
|---------------------|--|---|---|
| 1                   | 125 ft                                   | 190 ft  | 250 ft                                    |
| 11                  | 100 ft                                   | 150 ft  | 200 ft                                    |
| 111                 | 75 ft                                    | 110 ft  | 150 ft                                    |
| IV                  | 25 ft                                    | 40 ft   | 50 ft                                     |

### **Proposed Project**

The proposed project is the construction of a 30 stall RV park on the southwest portion of the site., a bed and breakfast and a barn that will be used as a small-scale event center, both being located towards the center of the property. There will be continued use an existing residence that will be converted into a short term rental.

All of the proposed development has been located outside all wetlands and streams. However, in order to make the existing driveway meet County road width requirements, some impacts to the buffers of Wetlands A & B will occur from the road widening. The proposed 60' access right-of-way will pass through 44,299sf of the buffer of Wetland A & B as they overlap in this area. To compensate for this impact, we will add an equal area (44,299sf) to the buffer.

If you have any questions in regards to this report or need additional information, please feel free to contact me at (253) 859-0515 or at <a href="mailto:esewall@sewallwc.com">esewall@sewallwc.com</a>.

Sincerely,

Sewall Wetland Consulting, Inc.

Ed Sewall

Senior Wetlands Ecologist PWS #212

Attached: Site Plan/Survey

Data sheets

Rating Forms and associated exhibits

#### REFERENCES

Cowardin, L., V. Carter, F. Golet, and E. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, FWS/OBS-79-31, Washington, D. C.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1. U. S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi.

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Muller-Dombois, D. and H. Ellenberg. 1974. Aims and Methods of Vegetation Ecology. John Wiley & Sons, Inc. New York, New York.

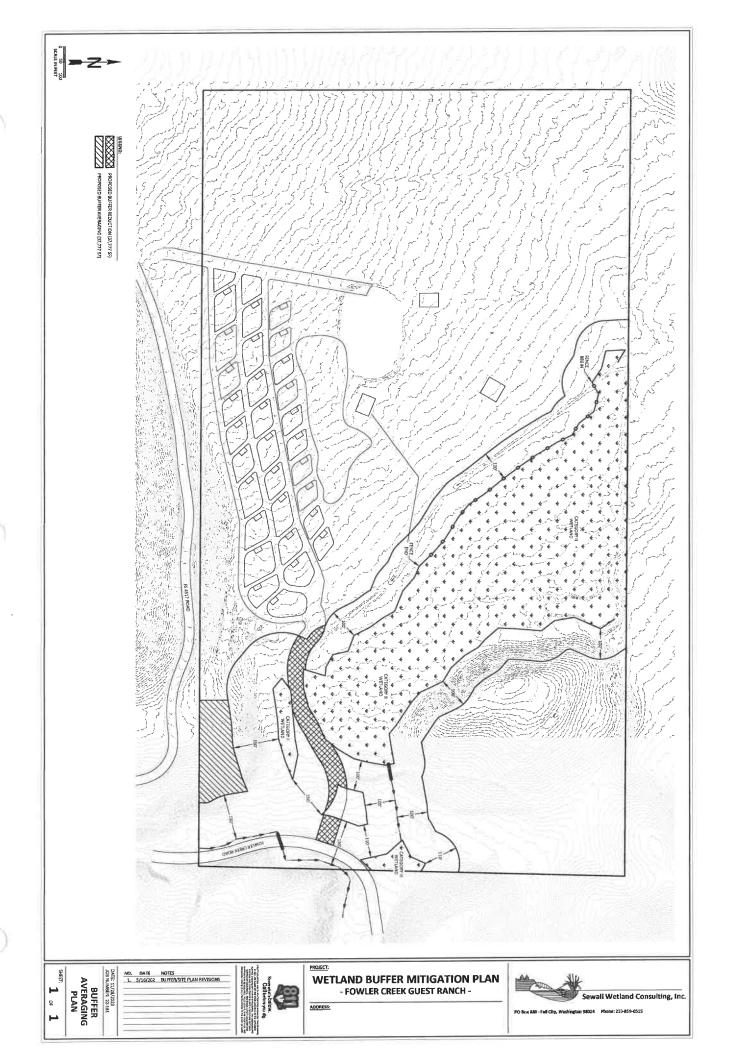
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Reed, P., Jr. 1988. National List of Plant Species that Occur in Wetlands: Northwest (Region 9). 1988. U. S. Fish and Wildlife Service, Inland Freshwater Ecology Section, St. Petersburg, Florida.

Reed, P.B. Jr. 1993. 1993 Supplement to the list of plant species that occur in wetlands: Northwest (Region 9). USFWS supplement to Biol. Rpt. 88(26.9) May 1988.

USDA NRCS & National Technical Committee for Hydric Soils, September 1995. Field Indicators of Hydric Soils in the United States - Version 2.1



# WETLAND DETERMINATION DATA FORM - Arid West Region

NE end of Wettend A

| Project/Site: Fowler                    | Creek                   | Cit                                     | y/County: K           | ttitus                                    | Sampling Date: 10-10-7   |
|---|-------------------------|---|-----------------------|---|--|
| Applicant/Owner:                        |                         |   |                       | State: WA                                 | _ Sampling Point: _ DP#  |
| nvestigator(s):                         | Sewall                  | Se                                      | ction, Township, Ra   |   |  |
| Landform (hillslope, terrace, etc.):    |                         | Lo                                      | ocal relief (concave, | convex, none):                            | Slope (%):   |
| Subregion (LRR):                        |                         |   |                       |   | Datum:   |
| Soil Map Unit Name:                     |                         |   |                       |   |  |
| Are climatic / hydrologic conditions on | the site basical for th | nie time of veer                        | Vac No                | (If no explain in                         | fication:  |
|   |                         |   |                       |   | " present? Yes No  |
| Are Vegetation, Soil, c                 |                         |   |                       |   |  |
| Are Vegetation, Soil, c                 |                         |   |                       | eded, explain any ansv                    |  |
| SUMMART OF FINDINGS - A                 | /                       |   | ampining point is     | ocations, usinsect                        | is, important reatures, etc.   |
| Hydrophytic Vegetation Present?         |                         | No                                      | Is the Sampled        | Area                                      |  |
| Hydric Soil Present?                    |                         | No                                      | within a Wetlar       | nd? Yes                                   | No   |
| Wetland Hydrology Present?              | Yes                     | No                                      |                       |   |  |
| Remarks:                                |                         |   |                       |   |  |
|   |                         |   |                       |   |  |
| /EGETATION Use scientifi                | c names of pla          | nts.                                    |                       | ·····                                     |  |
|   |                         |   | Dominant Indicator    | Dominance Test wo                         | rksheet:   |
| Tree Stratum (Plot size:                | )                       | % Cover S                               | Species? Status       | Number of Dominant                        |  |
| 1                                       |                         |   |                       | That Are OBL, FACW                        | /, or FAC: (A)   |
| 2                                       |                         |   |                       | Total Number of Dom                       |  |
| 3                                       |                         |   |                       | Species Across All St                     | trata: (B)   |
| 4.                                      |                         | =                                       | Total Cover           | Percent of Dominant<br>That Are OBL, FACW |  |
| Sapling/Shrub Stratum (Plot size: _     | )                       | address to                              |                       |   |  |
| 1                                       |                         |   |                       | Prevalence Index we                       |  |
| 2.                                      |                         |   |                       | Total % Cover of                          |  |
| 3                                       |                         |   |                       | -   | x1=  |
| 4                                       |                         |   |                       |   | x2=  |
| 5                                       |                         |   |                       |   | x3=  |
| Herb Stratum (Plot size:                | ,                       | =                                       | Total Cover           |   | x4=  |
| 1. Phyloris arus                        |                         | 80                                      | FACU                  | ( )                                       | x 5 = (B)  |
| 2. Festica sp                           |                         | 20                                      | FAL                   | Column Totals.                            | (A)(b)   |
| 3.                                      |                         |   |                       | Prevalence Inde                           | ex = B/A =   |
| 4.                                      | 1                       |   |                       | Hydrophytic Vegeta                        |  |
| 5                                       |                         |   |                       | Dominance Test                            |  |
| 6                                       |                         |   |                       | Prevalence Index                          |  |
| 7                                       |                         |   | N                     | Morphological Ac                          | faptations1 (Provide supporting  |
| 8                                       |                         |   |                       |   | rks or on a separate sheet) rophytic Vegetation <sup>1</sup> (Explain) |
|   |                         | ======================================= | Total Cover           | Problematic riyor                         | орнувс vegetason (ехрып)   |
| Woody Vine Stratum (Plot size:          |                         |   |                       | Indicators of hydric a                    | oil and wetland hydrology must   |
| 1.                                      |                         |   |                       |   | sturbed or problematic.  |
| 2                                       |                         |   | Total Cover           | Hydrophytic                               |  |
|   |                         |   |                       | Vegetation                                |  |
| % Bare Ground in Herb Stratum           | % Cov                   | er of Biotic Crus                       | t                     | Present?                                  | /es No   |
| Remarks:                                |                         |   |                       |   | •  |
|   |                         |   |                       |   |  |
|   |                         |   |                       |   |  |
|   |                         |   |                       |   |  |
|   | 1                       |   |                       |   |  |

Sampling Point: DP#1

| Depth  | Matrix   | Redox Features   | 3   |                |
|--|--|--|---|----------------|
| (inches)   | Color (moist) %  | Color (moist) % Type¹ Lo   | c <sup>2</sup> Texture Remarks  |                |
| 6  | 1042/2   |  |   |                |
| 14   | 7.54h 2.5/2  | Fen For Fact   | 954   |                |
|  |  |  |   |                |
|  |  |  |   |                |
|  |  |  |   |                |
|  |  |  |   |                |
|  |  |  |   |                |
|  |  |  |   |                |
|  |  |  |   |                |
| Type: C=C  | oncentration, D=Depletion, RM  | /=Reduced Matrix, CS=Covered or Coated Sar   | d Grains. <sup>2</sup> Location: PL=Pore Lining, M=Mat  | rix.           |
|  |  | II LRRs, unless otherwise noted.)  | Indicators for Problematic Hydric Soils   | :              |
| Histosol   | (A1)   | Sandy Redox (S5)   | 1 cm Muck (A9) (LRR C)  |                |
| Histic Ep  | oipedon (A2)   | Stripped Matrix (S6)   | 2 cm Muck (A10) (LRR B)   |                |
|  | stic (A3)  | Loamy Mucky Mineral (F1)   | Reduced Vertic (F18)  |                |
|  | n Sulfide (A4)   | Loamy Gleyed Matrix (F2)   | Red Parent Material (TF2)   |                |
|  | l Layers (A5) (LRR C)<br>lck (A9) (LRR D)  | Depteted Matrix (F3)  Redox Dark Surface (F6)  | Other (Explain in Remarks)  |                |
|  | Below Dark Surface (A11)   | Depleted Dark Surface (F7)   |   |                |
|  | ark Surface (A12)  | Redox Depressions (F8)   | <sup>3</sup> Indicators of hydrophytic vegetation and   |                |
|  | lucky Mineral (S1)   | Vernal Pools (F9)  | wetland hydrology must be present,  |                |
| Sandy G  | ileyed Matrix (S4)   |  | unless disturbed or problematic.  |                |
| Restrictive I  | .ayer (if present):  |  |   |                |
| Type:  |  |  |   |                |
| Depth (inc   | ches):   |  | Hydric Soll Present? Yes No   |                |
|  |  |  |   |                |
| IVDBOI O   | CV   |  |   |                |
|  |  |  |   |                |
| Wetland Hy   | drology indicators:  | and shook all that apply?  | Secondary Indicators /2 or more requi   | ired)          |
| Wetland Hye<br>Primary Indic   | drology Indicators:<br>eators (minimum of one require  |  | Secondary Indicators (2 or more requ  | ired)          |
| Wetland Hyd<br>Primary Indic<br>Surface  | drology Indicators:<br>ators (minimum of one require<br>Water (A1)   | Salt Crust (B11)   | Water Marks (B1) (Riverine)   |                |
| Wetland Hyd<br>Primary Indic<br>Surface<br>High Wa   | drology Indicators:<br>ators (minimum of one require<br>Water (A1)<br>ter Table (A2)   | Salt Crust (B11) Biotic Crust (B12)  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverin   |                |
| Wetland Hyd<br>Primary Indic<br>Surface<br>High Wa   | drology Indicators:<br>ators (minimum of one require<br>Water (A1)<br>ter Table (A2)<br>on (A3)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)  |                |
| Wetland Hyd<br>Primary Indic<br>Surface<br>High Wa<br>Saturatio  | drology Indicators: ators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)   | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)  |                |
| Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer  | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) of Deposits (B2) (Nonriverine)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)  |                |
| Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep  | drology Indicators: ators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)   | е)             |
| Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep  | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)   | е)             |
| Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic  | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6)   | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) S(C6) Saturation Visible on Aerial Imag   | е)             |
| Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S  | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (Etained Leaves (B9)   | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7)   | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)  Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imag Shallow Aquitard (D3)  | е)             |
| Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-Si   | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (Balaned Leaves (B9) vations:  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7)   | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)  Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imag Shallow Aquitard (D3)  | е)             |
| Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Observance   | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (Balained Leaves (B9) vations:   | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)  Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imag Shallow Aquitard (D3)  | е)             |
| Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Observance   | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (Batained Leaves (B9) vations: er Present? Yes                                 | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): Depth (inches):    | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)  Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imag Shallow Aquitard (D3)  | e)<br>ery (C9) |
| Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S Field Obser Surface Water Vater Table Saturation Pr (includes cap  | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (Balaned Leaves (B9) vations: ar Present? Present? Yes resent? Yes resent? Yes | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): No Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) S (C6) Saturation Visible on Aerial Imag Shallow Aquitard (D3) FAC-Neutral Test (D5)  Netland Hydrology Present? Yes No | e)<br>ery (C9) |
| Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S Field Obser Surface Water Vater Table Saturation Pr (includes cap  | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (Balaned Leaves (B9) vations: ar Present? Present? Yes resent? Yes resent? Yes | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): Depth (inches):    | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) S (C6) Saturation Visible on Aerial Imag Shallow Aquitard (D3) FAC-Neutral Test (D5)  Netland Hydrology Present? Yes No | e)<br>ery (C9) |
| Primary Indic  Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S Field Observ Surface Water Saturation Precinculates cap Describe Rec  | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (Balaned Leaves (B9) vations: ar Present? Present? Yes resent? Yes resent? Yes | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): No Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) S (C6) Saturation Visible on Aerial Imag Shallow Aquitard (D3) FAC-Neutral Test (D5)  Netland Hydrology Present? Yes No | e)<br>ery (C9) |
| Primary Indice Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Observ Surface Water Water Table Saturation Projection Received Re | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (Balaned Leaves (B9) vations: ar Present? Present? Yes resent? Yes resent? Yes | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): No Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) S (C6) Saturation Visible on Aerial Imag Shallow Aquitard (D3) FAC-Neutral Test (D5)  Netland Hydrology Present? Yes No | e)<br>ery (C9) |
| Primary Indice Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Observ Surface Water Water Table Saturation Processoribe Recessoribe  | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (Balaned Leaves (B9) vations: ar Present? Present? Yes resent? Yes resent? Yes | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): No Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) S (C6) Saturation Visible on Aerial Imag Shallow Aquitard (D3) FAC-Neutral Test (D5)  Netland Hydrology Present? Yes No | e)<br>ery (C9) |
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| Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S Field Obser Surface Water Vater Table Saturation Pr (includes cap  | drology Indicators: cators (minimum of one require Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) sosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (Balaned Leaves (B9) vations: ar Present? Present? Yes resent? Yes resent? Yes | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  No Depth (inches): No Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) S (C6) Saturation Visible on Aerial Imag Shallow Aquitard (D3) FAC-Neutral Test (D5)  Netland Hydrology Present? Yes No | e)<br>ery (C   |

# WETLAND DETERMINATION DATA FORM - Arid West Region

Lend NE

| Project/Site: Fowler                    | Creek           |                  | City/County:   | Kittitus   | Sampling Date: 10.10.2                                 |
|---|-----------------|------------------|----------------|--|--|
| Annlicant/Owner:                        |                 |                  |                |  | Sampling Point: DP# Z                                  |
| Investigator(s):                        | Sewall          |                  |                | , Range:   |  |
| Landform (hillslope, terrace, etc.):    |                 |                  |                |  | Slope (%):   |
| Subregion (LRR):                        |                 |                  |                |  |  |
|   |                 | Lat              |                | Long   | Gardian.   |
| Soil Map Unit Name:                     |                 |                  |                | NVVI CIZSSII   | fication:  |
| Are climatic / hydrologic conditions on |                 |                  | ar? Yes        | lo (ir no, explain in  | Remarks.)  |
| Are Vegetation, Soil,                   |                 |                  |                |  | present? Yes No No                                     |
| Are Vegetation, Soil,                   | or Hydrology    | _ naturally proi | blematic? (    | If needed, explain any answ  | vers in Remarks.)                                      |
| SUMMARY OF FINDINGS -                   | Attach site ma  | p showing        | sampling poi   | nt locations, transect   | s, important features, etc.                            |
| Hydrophytic Vegetation Present?         | Yes             | No V             |                |  |  |
| Hydric Soil Present?                    | Yes             |                  | Is the Sam     |  | No   |
| Wetland Hydrology Present?              | Yes             |                  | within a We    | euano? res   | NO   |
| Remarks:                                |                 | -                |                |  |  |
| VEGETATION — Use scientif               | ic names of pla | ints.            |                | The state of the s |  |
|   |                 | Absolute         |                |  | rksheet:   |
| Tree Stratum (Plot size:                |                 |                  | Species? Statu |  | Species<br>/, or FAC:(A)                               |
| 1. Piris pordio                         |                 |                  | •              | - Itlat Are Obt., PACVV  |  |
| 2.                                      |                 |                  |                | Total Number of Dom  |  |
| 3                                       |                 |                  |                | Species Across All St  | rata: (B)  |
| 4                                       |                 |                  | = Total Cover  | Percent of Dominant  | Species<br>7, or FAC: 25 (A/B)                         |
| Sapling/Shrub Stratum (Plot size: _     | )               |                  |                | I Hat Are Obt., PACVV  | , GIAG (AB)  |
| 1. Bubus Ne                             | rvesu           | 20               |                | Prevalence index wo  | wksheet:   |
| 2. Symphorica                           | ous albus       | 40               | PAC            |  | Multiply by:   |
| 3                                       |                 |                  |                |  | x1=  |
| 4                                       |                 |                  |                |  | x2=  |
| 5                                       |                 |                  |                |  | x3=  |
| Hards Chartery (Diet sine)              |                 |                  | = Total Cover  |  | ×4=  |
| 1. Proper 5                             | 00.             | 30               | FA             | - I  | x 5 = (B)  |
| 2.                                      | 10              |                  |                | Column : Otals.  | (A)(B)   |
| 3.                                      |                 |                  |                | Prevalence Inde  | ex = B/A =   |
| 4                                       |                 |                  |                | Hydrophytic Vegetal  | tion Indicators:                                       |
| 5                                       |                 |                  |                | Dominance Test   | is >50%  |
| 6                                       |                 |                  |                | Prevalence Index   | (is ≤3.0 <sup>1</sup>                                  |
| 7                                       |                 |                  |                | Morphological Ad   | laptations <sup>1</sup> (Provide supporting            |
| 8.                                      |                 |                  |                |  | ks or on a separate sheet)                             |
|   |                 |                  | = Total Cover  | Problematic Hydr   | rophytic Vegetation <sup>1</sup> (Explain)             |
| Woody Vine Stratum (Plot size:          | )               |                  |                | 1,   | وينتناه والمساسيط المساولوس المسالم                    |
| 1                                       | •               |                  |                |  | oil and wetland hydrology must sturbed or problematic. |
| 2                                       |                 |                  |                | _  |  |
|   |                 |                  | = Total Cover  | Hydrophytic<br>Vegetation  | 1/   |
| % Bare Ground in Herb Stratum           | % Co            | ver of Biotic C  | rust           | Present? Y   | /es No   |
| Remarks:                                |                 |                  |                |  |  |
|   |                 |                  |                |  |  |
|   |                 |                  |                |  |  |
|   | t               |                  |                |  |  |
|   |                 |                  |                |  |  |

| SOI | ı |
|-----|---|
| JUI | _ |

Sampling Point: DP#Z

| Profile Desc  | cription: (Descri                      | be to the dept   | th nee   | ded to docu    | ment the i   | ndicator (        | or confirm       | the abse     | nce of ind   | cators.)                       |          |             |
|---------------|--|------------------|----------|----------------|--------------|-------------------|------------------|--------------|--------------|--------------------------------|----------|-------------|
| Depth         | Matri:                                 |                  |          |                | x Features   |                   |                  |              |              | _                              |          |             |
| (inches)      | Color (moist)                          |                  | Col      | or (moist)     | %            | Type <sup>1</sup> | Loc <sup>2</sup> | Texture      | <u> </u>     | Rema                           | ırks     |             |
| 14            | 10h3/                                  | <u> </u>         |          |                |              |                   |                  | 9-1          | <u> </u>     |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              | _            |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                | -            |                   |                  |              |              |                                |          |             |
|               | ,                                      |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  | 13               |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  | _        |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                | -:           |                   |                  |              |              |                                |          |             |
|               | concentration, D=C                     |                  |          |                |              |                   | d Sand Gra       |              |              | PL=Pore Lini                   |          |             |
| Hydric Soil   | Indicators: (App                       | licable to all l | LRRs,    | unless othe    | rwise note   | ed.)              |                  | Indicat      | ors for Pr   | oblematic Hy                   | dric Sol | ls³:        |
| Histosol      | I (A1)                                 |                  |          | Sandy Red      | ox (S5)      |                   |                  | 1 c          | m Muck (A    | 9) (LRR C)                     |          |             |
| Histic E      | pipedon (A2)                           |                  | _        | Stripped Ma    | atrix (S6)   |                   |                  |              | •            | 10) (LRR B)                    |          |             |
| Black Hi      | istic (A3)                             |                  | _        | Loamy Muc      | -            |                   |                  |              | duced Veri   |                                |          |             |
|               | en Sulfide (A4)                        |                  | -        | Loamy Gley     |              | (F2)              |                  |              |              | aterial (TF2)                  |          |             |
|               | d Layers (A5) (LR                      | R C)             | _        | Depleted M     |              | <b>F</b> 0)       |                  | O#           | ner (Explair | n in Remarks)                  |          |             |
|               | uck (A9) (LRR D)                       | . (8.44)         | -        | Redox Dark     |              | •                 |                  |              |              |                                |          |             |
|               | d Below Dark Surf                      | ace (A11)        | -        | Depleted Da    |              |                   |                  | 31 m at: 4   |              | anhudia                        | ation    |             |
| _             | ark Surface (A12)                      | `                | -        | Redox Dep      | •            | ·8)               |                  |              | -            | ophytic veget                  |          | 0           |
|               | Mucky Mineral (S1                      | •                | -        | Vernal Pool    | s (ra)       |                   |                  |              | -            | gy must be pi<br>d or problema |          |             |
|               | Gleyed Matrix (S4)  Layer (if present) |                  |          |                |              |                   |                  | United       | s distuide   | or problema                    | uc.      |             |
|               |  |                  |          |                |              |                   |                  | 1            |              |                                |          | ,           |
| Type:         |  |                  |          |                |              |                   |                  |              |              | -40 V                          |          | . /         |
|               | ches):                                 |                  |          |                |              |                   |                  | нуапс з      | Soil Prese   | nt? Yes                        |          | to <u>/</u> |
| Remarks:      |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
| HYDROLO       | CV                                     |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
| 20.           | drology Indicator                      |                  |          |                | rae          |                   |                  | -            |              |                                |          |             |
| Primary Indic | cators (minimum c                      | f one required   | checi    | all that appl  | V)           | -                 |                  | Se           |              | dicators (2 or                 |          | quired)     |
|               | Water (A1)                             |                  | -        | Salt Crust     |              |                   |                  |              |              | arks (B1) ( <b>Riv</b>         |          |             |
|               | ater Table (A2)                        |                  | _        | Biotic Crus    |              |                   |                  |              | _            | t Deposits (B2                 | . ,      | rine)       |
| Saturation    | on (A3)                                |                  | _        | Aquatic Im     | vertebrates  | (B13)             |                  |              |              | osits (B3) (Ri                 | •        |             |
|               | larks (B1) ( <b>Nonri</b> v            |                  | -        | Hydrogen       | Sulfide Od   | or (C1)           |                  | _            | -            | Patterns (B1                   | •        |             |
| Sedimer       | nt Deposits (B2) (N                    | lonriverine)     | _        | Oxidized F     | Rhizospher   | es along L        | iving Root       | ts (C3)      |              | son Water Tal                  | . ,      |             |
| Drift Dep     | oosits (B3) ( <b>Nonri</b>             | verine)          | _        | Presence       | of Reduce    | d Iron (C4)       | )                | _            | Crayfish     | Burrows (C8)                   |          |             |
| Surface       | Soil Cracks (B6)                       |                  |          | Recent Iro     | n Reductio   | n in Tilled       | Soils (C6)       | )            | Saturation   | n Visible on A                 | enai Im  | agery (C9)  |
| Inundatio     | on Visible on Aeria                    | al Imagery (B7   | ) _      | Thin Muck      | Surface (0   | C7)               |                  | -            | Shallow      | Aquitard (D3)                  |          |             |
| Water-S       | tained Leaves (B9                      | 9)               | _        | Other (Exp     | olain in Rei | narks)            |                  |              | FAC-Net      | itral Test (D5)                | )        |             |
| Field Observ  | vations:                               |                  |          | /              |              |                   |                  |              |              |                                |          |             |
| Surface Water | er Present?                            | Yes N            | lo       | Depth (inc     | ches):       |                   | _::              |              |              |                                |          |             |
| Water Table   | Present?                               | Yes N            |          |                | ches):       |                   |                  |              |              |                                |          | /           |
| Saturation Pr |  | Yes N            |          | Depth (inc     |              |                   | Wetla            | and Hvdroi   | ogy Prese    | nt? Yes_                       |          | No          |
| (includes cap | pillary fringe)                        |                  |          |                |              |                   |                  |              |              |                                |          |             |
| Describe Rec  | corded Data (strea                     | am gauge, mor    | nitoring | well, aerial ( | ohotos, pre  | vious insp        | ections), il     | f available: |              |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
| Remarks:      |  |                  |          |                |              |                   |                  |              |              | 189                            |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |
|               |  |                  |          |                |              |                   |                  |              |              |                                |          |             |

# WETLAND DETERMINATION DATA FORM -- Arid West Region

wet A

| roject/Site:                                   |   |                                   | Sampling Date: 10-10-  |
|--|---|-----------------------------------|--|
| pplicant/Owner:                                |   | State:                            | A Sampling Point: シクギ  |
| vestigator(s):                                 | Section       Section | on, Township, Range:              |  |
| andform (hillslope, terrace, etc.):            | Loca  | I relief (concave, convex, none): | Slope (%):   |
| ubregion (LRR):                                |   | Long:                             | Datum:   |
| oil Map Unit Name:                             |   | NWI o                             | lassification:   |
| e climatic / hydrologic conditions on the site |   | es No (If no, expla               | in in Remarks.)  |
| re Vegetation, Soil, or Hydrol                 |   |                                   | nces" present? Yes V No  |
| e Vegetation, Soil, or Hydrol                  |   |                                   |  |
| UMMARY OF FINDINGS - Attach                    |   |                                   | -  |
| UMMANT OF THIS INC.                            |   | ipining point tooditorio, duit    | socio, importanti roctarios, et  |
| 7  | No  | Is the Sampled Area               |  |
| Hydric Soil Present? Yes                       |   | within a Wetland?                 | B No   |
| Wetland Hydrology Present? Yes Remarks:        | No  | L                                 |  |
| EGETATION – Use scientific nam                 |   | ninant Indicator   Dominance Tea  | t worksheet:   |
| Free Stratum (Plot size:)                      | % Cover Spe   | cies? Status Number of Domi       |  |
| Free Stratum (Plot size:  1. Thu, in plicata   | 40  | FAC That Are OBL, F               |  |
|  |   | Total Number of                   | Dominant / /   |
| 3.   |   | Species Across                    |  |
|  |   | Percent of Domi                   |  |
| Sapling/Shrub Stratum (Plot size:              | =To   | That rue Obe, .                   | ACW, or FAC: (A/B  |
| 1. Corrus Stalmar                              | <u> 30</u>  |                                   |  |
| 2  |   |                                   | er of: Multiply by:  |
|  |   | FARM                              | x1=  |
|  |   |                                   | x2=  |
| ·  |   |                                   | ×3=  |
| lerb Stratum (Plot size:)                      | = 10  |                                   | x4=x5=   |
| Lysich fra amere                               | us ZU   | / 3 / -                           | (A) (B)  |
| Glassa class                                   | 30  | FAIN                              | (-)  |
|  |   |                                   | Index = B/A =  |
|  |   |                                   | getation indicators:   |
|  |   |                                   |  |
|  |   | Prevalence                        |  |
| 7- <del></del>                                 |   |                                   | al Adaptations <sup>1</sup> (Provide supporting emarks or on a separate sheet) |
|  |   | Problematic                       | Hydrophytic Vegetation <sup>1</sup> (Explain)                                  |
| Noody Vine Stratum (Plot size:                 |   | tal Cover                         | - · · · · · · · · · · · · · · · · · · ·  |
| I  |   |                                   | dric soil and wetland hydrology must   |
| 2.   |   | be present, unles                 | ss disturbed or problematic.   |
|  | = To  | tal Cover Hydrophytic             |  |
| % Bare Ground in Herb Stratum                  | 50.4  | Vegetation                        | Yes No   |
| & Bare Ground in Fierd Stratum                 | OUVER OF DIOTIC CRUST_  | ricoditi                          | 108  |
|  | 3.  |                                   |  |
| tanaks.  |   |                                   |  |
| agirains.                                      |   |                                   |  |

Sampling Point: DP#7

| Depth (inches)  | Matrix Color (moist)   | % -  | Redox Features  Color (moist)   | Loc <sup>2</sup> Texture   | Remarks  |
|---|--|--|---|--|--|
| (inches)  | Color (moist)  | <u></u> ————————————————————————————————————   | Color (moist) % Type1   |  |  |
| 16  | 10/2/1   |  |   | heric  | pen  |
|   |  |  |   |  |  |
|   |  |  |   |  |  |
|   |  |  |   |  |  |
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|   |  |  |   |  |  |
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|   |  |  |   |  |  |
|   |  |  |   |  |  |
|   |  |  |   |  |  |
| Type: C=80  | ncentration, D=Denk  | etion, RM=R                                    | Reduced Matrix, CS=Covered or Coated  | Sand Grains. <sup>2</sup> L  | ocation: PL=Pore Lining, M=Matrix.   |
|   |  |  | RRs, unless otherwise noted.)   |  | rs for Problematic Hydric Soils <sup>3</sup> :   |
| Histosol  | -  |  | Sandy Redox (S5)  |  | Muck (A9) (LRR C)  |
|   | ' '  |  | Stripped Matrix (S6)  |  | Muck (A10) (LRR B)   |
| Hisuc Ep<br>Black His   | ipedon (A2)  |  | Loamy Mucky Mineral (F1)  |  | uced Vertic (F18)  |
|   | n Sulfide (A4)   |  | Loamy Gleyed Matrix (F2)  |  | Parent Material (TF2)  |
|   | 1 Suinde (A4)<br>Layers (A5) (LRR C  | `  | Depleted Matrix (F3)  |  | r (Explain in Remarks)   |
|   | ck (A9) (LRR D)  | ,  | Redox Dark Surface (F6)   | Oute   | - familiant in transmissal   |
|   | Below Dark Surface   | (A11)  | Depleted Dark Surface (F7)  |  |  |
|   | rk Surface (A12)   | אייטי  | Redox Depressions (F8)  | 3Indicator   | s of hydrophytic vegetation and  |
|   | ucky Mineral (S1)  |  | Vernal Pools (F9)   |  | d hydrology must be present,   |
|   | eyed Matrix (S4)   |  |   |  | disturbed or problematic.  |
|   | ayer (if present):   |  |   |  |  |
| INCOMICHION C   | ayer (ii present).   |  |   |  |  |
| Time  |  |  |   |  |  |
| Type:   |  |  | =   | Under Co   | il Omerata Van   |
| Depth (inc  | hes):  |  |   | Hydric So  | ill Present? Yes No  |
| Depth (inc  | hes):  |  |   | Hydric Sa  | il Present? Yes No   |
| Depth (inc<br>Remarks:  | SY.  |  |   | Hydric Sa  | il Present? Yes No   |
| Depth (inc<br>Remarks:  |  |  |   | Hydric Sa  | il Present? Yes No   |
| Depth (inc<br>Remarks:<br>IYDROLOG<br>Wetland Hyd   | SY<br>rology Indicators:   | e required;                                    | check all that apply)   |  | ondary Indicators (2 or more required)   |
| Depth (inc<br>Remarks:<br>IYDROLOG<br>Wetland Hyd<br>Primary Indica   | SY<br>rology Indicators:   | e required;                                    | check all that apply) Sait Crust (B11)  | Sec  |  |
| Depth (inc<br>Remarks:<br>IYDROLOG<br>Wetland Hyd<br>Primary Indica<br>Surface V  | SY<br>rology Indicators:<br>ators (minimum of or<br>Vater (A1)   | e required;                                    |   | Sec  | ondary Indicators (2 or more required)   |
| Depth (inc<br>Remarks:<br>IYDROLOG<br>Wetland Hyd<br>Primary Indica<br>Surface V  | FOODY Indicators:<br>ators (minimum of or<br>Vater (A1)<br>er Table (A2)   | e required;                                    | Salt Crust (B11)  | Section  | ondary Indicators (2 or more required)<br>Water Marks (B1) (RiverIne)  |
| Depth (inc<br>Remarks:<br>IYDROLOG<br>Wetland Hyd<br>Primary Indica<br>Surface V<br>Brigh Wat<br>Saturation   | Frology Indicators:<br>ators (minimum of or<br>Water (A1)<br>er Table (A2)<br>n (A3)   |  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)   | Seco   | ondary Indicators (2 or more required)<br>Water Marks (B1) (RiverIne)<br>Sediment Deposits (B2) (Riverine)   |
| Depth (inc<br>Remarks:  IYDROLOG  Wetland Hyd  Primary Indica  Surface V  Lingh Wat  Saturation  Water Ma   | rology Indicators:<br>ators (minimum of or<br>Vater (A1)<br>er Table (A2)<br>n (A3)<br>arks (B1) (Nonriveria   | ne)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)  | Seco   | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)  |
| Depth (inc<br>Remarks:  IYDROLOG  Wetland Hyd  Primary Indica  Surface Water Mater Mate | rology Indicators:<br>ators (minimum of or<br>Vater (A1)<br>er Table (A2)<br>n (A3)<br>arks (B1) (Nonriveria<br>t Deposits (B2) (Non   | ne)<br>riverine)                               | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv  | Secondary Second | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)  |
| Depth (inc<br>Remarks:  IYDROLOG  Wetland Hyd  Primary Indica  Surface V  Lingh Wat  Saturation  Water Ma  Sediment  Drift Dept   | rology Indicators:<br>ators (minimum of or<br>Vater (A1)<br>er Table (A2)<br>n (A3)<br>arks (B1) (Nonriveria<br>t Deposits (B2) (Non   | ne)<br>riverine)                               | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4)  | Section Sectio | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)  |
| Depth (inc<br>Remarks:  IYDROLOG  Wetland Hyd  Primary Indica  Surface V  bigh Wat  Saturatio  Water Ma  Sediment  Drift Depo   | rology Indicators:<br>ators (minimum of or<br>Vater (A1)<br>er Table (A2)<br>n (A3)<br>arks (B1) (Nonriveria<br>t Deposits (B2) (Non-<br>osits (B3) (Nonriveria<br>Goil Cracks (B6)  | ne)<br>riverine)<br>ne)                        | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S  | Section Sectin Section Section Section Section Section Section Section Section | ondary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)  |
| Depth (inc<br>Remarks:  IYDROLOG  Wetland Hyd  Primary Indica  Surface V  High Wat  Saturation  Water Ma  Sediment  Drift Depo  | rology Indicators:<br>ators (minimum of or<br>Vater (A1)<br>er Table (A2)<br>n (A3)<br>arks (B1) (Nonriveria<br>t Deposits (B2) (Non-<br>posits (B3) (Nonriveria<br>coil Cracks (B6)<br>n Visible on Aerial In   | ne)<br>riverine)<br>ne)                        | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)   | ing Roots (C3)   | ondary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3)                       |
| Depth (inc<br>Remarks:  IYDROLOG  Wetland Hyd  Primary Indica  Surface W  High Wat  Saturation  Water Ma  Sediment  Drift Depo  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriveria t Deposits (B2) (Non posits (B3) (Nonriveria Goil Cracks (B6) n Visible on Aerial In ained Leaves (B9)   | ne)<br>riverine)<br>ne)                        | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S  | ing Roots (C3)   | ondary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)  |
| Depth (inc<br>Remarks:  IYDROLOG  Wetland Hyd  Primary Indica  Surface V  High Wat  Saturation  Water Ma  Sediment  Drift Depth  Surface S  Inundation  Water-Sta   | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriveria t Deposits (B2) (Non osits (B3) (Nonriveria Goil Cracks (B6) n Visible on Aerial In ained Leaves (B9) ations:  | ne)<br>riverine)<br>ne)<br>nagery (B7)         | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)                                  | ing Roots (C3)   | ondary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3)                       |
| Depth (inc<br>Remarks:  IYDROLOG  Wetland Hyd  Primary Indica  Surface V  brigh Wat  Saturatio  Water Ma  Sediment  Drift Depo  Surface S  Inundatio  Water-Sta  Field Observ  Surface Water  | rology Indicators: ators (minimum of or Nater (A1) er Table (A2) in (A3) arks (B1) (Nonriverial Deposits (B2) (Nonriverial Cracks (B6) in Visible on Aerial Indianed Leaves (B9) attions: r Present?   | ne)<br>riverine)<br>ne)<br>nagery (B7)<br>s No | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches):                 | ing Roots (C3)   | ondary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3)                       |
| Depth (inc<br>Remarks:  IYDROLOG  Wetland Hyd  Primary Indica  Surface V  High Wat  Saturation  Water Ma  Sediment  Drift Depth  Surface S  Inundation  Water-Sta   | rology Indicators: ators (minimum of or Nater (A1) er Table (A2) in (A3) arks (B1) (Nonriverial Deposits (B2) (Nonriverial Cracks (B6) in Visible on Aerial Indicators: r Present? Yeersent? Yeersent?   | ne) riverine) ne) nagery (B7) s No             | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | ing Roots (C3)   | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Depth (inc<br>Remarks:  IYDROLOG  Wetland Hyd  Primary Indica  Surface V  brigh Wat  Saturatio  Water Ma  Sediment  Drift Depo  Surface S  Inundatio  Water-Sta  Field Observ  Surface Water  | rology Indicators: ators (minimum of or Nater (A1) er Table (A2) in (A3) arks (B1) (Nonriverial Deposits (B2) (Nonriverial Cracks (B6) in Visible on Aerial Indicators: r Present? Yeeresent? Yeeresent?   | ne)<br>riverine)<br>ne)<br>nagery (B7)<br>s No | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | ing Roots (C3)   | ondary Indicators (2 or more required) Water Marks (B1) (RiverIne) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3)                       |
| Depth (inc Remarks:  IYDROLOG Wetland Hyd Primary Indica Surface V High Water Ma Sediment Drift Dept Surface S Inundation Water-Sta Field Observ Surface Water Water Table F Saturation Pre (includes capi  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriveria t Deposits (B2) (Non osits (B3) (Nonriveria Goil Cracks (B6) n Visible on Aerial In ained Leaves (B9) ations: r Present? Present? Ye esent? Ye llary fringe) | ne) ne) nagery (B7) s No s No                  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Section Sectin Section Section Section Section Section Section Section Section | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Depth (inc Remarks:  IYDROLOG Wetland Hyd Primary Indica Surface V High Water Ma Sediment Drift Dept Surface S Inundation Water-Sta Field Observ Surface Water Water Table F Saturation Pre (includes capi  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriveria t Deposits (B2) (Non osits (B3) (Nonriveria Goil Cracks (B6) n Visible on Aerial In ained Leaves (B9) ations: r Present? Present? Ye esent? Ye llary fringe) | ne) ne) nagery (B7) s No s No                  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Section Sectin Section Section Section Section Section Section Section Section | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Depth (inc Remarks:  IYDROLOG Wetland Hyd Primary Indica Surface V High Water Ma Sediment Drift Dept Surface S Inundation Water-Sta Field Observ Surface Water Water Table F Saturation Pre (includes capi  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriveria t Deposits (B2) (Non osits (B3) (Nonriveria Goil Cracks (B6) n Visible on Aerial In ained Leaves (B9) ations: r Present? Present? Ye esent? Ye llary fringe) | ne) ne) nagery (B7) s No s No                  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Section Sectin Section Section Section Section Section Section Section Section | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Depth (inc Remarks:  IYDROLOG Wetland Hyd Primary Indica Surface V High Water Ma Sediment Drift Dept Surface S Inundation Water-Sta Field Observ Surface Water Water Table F Saturation Pre (includes capi  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriveria t Deposits (B2) (Non osits (B3) (Nonriveria Goil Cracks (B6) n Visible on Aerial In ained Leaves (B9) ations: r Present? Present? Ye esent? Ye llary fringe) | ne) ne) nagery (B7) s No s No                  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Section Sectin Section Section Section Section Section Section Section Section | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Depth (inc Remarks:  IYDROLOG Wetland Hyd Primary Indica Surface Water Ma Sediment Drift Depo Surface S Inundatio Water-Sta Field Observ Surface Water Water Table F Saturation Pre (includes capi Describe Reco  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriveria t Deposits (B2) (Non osits (B3) (Nonriveria Goil Cracks (B6) n Visible on Aerial In ained Leaves (B9) ations: r Present? Present? Ye esent? Ye llary fringe) | ne) ne) nagery (B7) s No s No                  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Section Sectin Section Section Section Section Section Section Section Section | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Depth (inc Remarks:  IYDROLOG Wetland Hyd Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Surface S Inundatio Water-Sta Field Observ Surface Water Water Table F Saturation Pre (includes capi  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriveria t Deposits (B2) (Non osits (B3) (Nonriveria Goil Cracks (B6) n Visible on Aerial In ained Leaves (B9) ations: r Present? Present? Ye esent? Ye llary fringe) | ne) ne) nagery (B7) s No s No                  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Section Sectin Section Section Section Section Section Section Section Section | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Depth (inc Remarks:  IYDROLOG Wetland Hyd Primary Indica Surface Water Ma Sediment Drift Depo Surface S Inundatio Water-Sta Field Observ Surface Water Water Table F Saturation Pre (includes capi Describe Reco  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) (Nonriveria t Deposits (B2) (Non osits (B3) (Nonriveria Goil Cracks (B6) n Visible on Aerial In ained Leaves (B9) ations: r Present? Present? Ye esent? Ye llary fringe) | ne) ne) nagery (B7) s No s No                  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Section Sectin Section Section Section Section Section Section Section Section | ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) |

wet A new A3D

# WETLAND DETERMINATION DATA FORM - Arid West Region

| Project/Site: Fou                | la Cra           | ek                         | City/County: K                     | ttites                                       | _ Sampling Date:   |
|----------------------------------|------------------|----------------------------|------------------------------------|--|--|
| opolicant/Owner:                 |                  |                            |                                    | State: WA                                    | Sampling Point: DPF  |
| vestigator(s):                   | d Sewal          | 1                          | Section, Township, Rai             |  |  |
|                                  | G.):             |                            |                                    |  | Stope (%):   |
| •                                |                  |                            |                                    |  | Datum:   |
|                                  |                  |                            |                                    |  |  |
| oli Map Unit Name:               |                  | I for all to all to a form | and Ma                             | /H ma complain in                            | fication:  |
| re climatic / hydrologic conditi |                  | ALC:                       |                                    | (is no, explain in                           | present? Yes No  |
| re Vegetation, Soil              |                  |                            |                                    |  |  |
| re Vegetation, Soil              |                  |                            |                                    | eded, explain any ansv                       | -  |
| UMMARY OF FINDING                | 3S - Attach site | map showing                | sampling point le                  | ocations, transect                           | ts, important features, etc  |
| Hydrophytic Vegetation Prese     | ent? Yes         | No                         | Is the Sampled                     | Arag   |  |
| Hydric Soil Present?             | Yes              | No                         | within a Wetlan                    |  | No   |
| Wetland Hydrology Present?       | Yes              | No                         |                                    |  |  |
| Remarks:                         |                  |                            |                                    |  |  |
|                                  |                  |                            |                                    |  |  |
|                                  |                  |                            |                                    |  |  |
| EGETATION - Use sci              | ientific names o | f plants.                  |                                    |  | ×  |
| Tree Stratum (Plot size:         | ×                | Absolute<br>% Cover        | Dominant Indicator Species? Status | Dominance Test wo                            | The state of the s |
| l.                               |                  | A Cover                    | Species Ciaids                     | Number of Dominant<br>That Are OBL, FACW     |  |
| 2.                               |                  |                            |                                    |  | ,  |
| 3.                               |                  |                            |                                    | Total Number of Dom<br>Species Across All St |  |
|                                  |                  |                            |                                    |  |  |
|                                  |                  |                            | = Total Cover                      | Percent of Dominant That Are OBL, FACW       |  |
| Sapling/Shrub Stratum (Plot      |                  | 7 20                       | EN.                                |  |  |
| Alnus 31.                        |                  |                            | 776                                | Prevalence Index we                          |  |
| <u></u>                          |                  |                            |                                    | Total % Cover of                             | : Multiply by:   |
| 3                                |                  |                            |                                    |  | x2=  |
|                                  |                  |                            |                                    |  | x3=  |
| j                                |                  |                            | = Total Cover                      |  | x4=  |
| Herb Stratum (Plot size:         | )                |                            | - Total Cover                      |  | x5=  |
| 1. Scirpes mie                   | ocapus           | 20                         | FALM                               |  | (A) (B)  |
| 5tachys c                        | culyen           | 20                         | FACO                               |  |  |
| 3. Phaling ar                    |                  | 20                         | FACW                               |  | ex = B/A =   |
| Athyrim                          | FA Line          | 20                         | FAC                                | Hydrophytic Vegeta                           |  |
| 5                                |                  |                            |                                    | Dominance Test                               |  |
| 5                                |                  |                            |                                    | Prevalence Index                             |  |
| •                                |                  |                            |                                    | Morphological Ad                             | laptations¹ (Provide supporting rks or on a separate sheet)  |
| 3                                |                  |                            |                                    |  | rophytic Vegetation <sup>1</sup> (Explain)   |
|                                  |                  |                            | = Total Cover                      |  | oprijud vogomini (mapidiri)  |
| Woody Vine Stratum (Plot si      |                  | 1.                         |                                    | <sup>1</sup> Indicators of bydric s          | oil and wettand hydrology must   |
|                                  |                  |                            |                                    |  | sturbed or problematic.  |
| 2                                |                  |                            | = Total Cover                      | Hydrophytic                                  | /  |
|                                  |                  |                            | = Total Cover                      | Vegetation                                   |  |
| % Bare Ground in Herb Strat.     | .m m.            | % Cover of Biotic C        | rust                               | Present?                                     | /es No   |
| Remarks:                         |                  |                            |                                    |  |  |
|                                  |                  |                            |                                    |  |  |
|                                  |                  |                            |                                    |  |  |
|                                  |                  |                            |                                    |  |  |

Sampling Point:

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|---|----|---|
|   |    |   |

|  | n needed to document the indicator or cor  | ,   |
|--|--|---|
| Depth Matrix   | Redox Features   | Ž Povode  |
| (inches) Color (moist) %   | Color (moist) % Type Loc   | Z Texture Remarks   |
| y 10/23/3  |  | +   |
| 16 10h3/2  | come and dis   | inel  |
|  |  |   |
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|  |  |   |
|  |  |   |
| <sup>1</sup> Type: C=Concentration, D=Depletion, RM=F  |  |   |
| Hydric Soil Indicators: (Applicable to all L   | 1  | Indicators for Problematic Hydric Soiis <sup>3</sup> :  |
| Histosol (A1)  | Sandy Redox (\$5)  | 1 cm Muck (A9) (LRR C)  |
| Histic Epipedon (A2)   | Stripped Matrix (S6)   | 2 cm Muck (A10) (LRR B)   |
| Black Histic (A3)  | Loamy Mucky Mineral (F1)   | Reduced Vertic (F18)  |
| Hydrogen Sulfide (A4)  | Loamy Gleyed Matrix (F2)   | Red Parent Material (TF2)   |
| Stratified Layers (A5) (LRR C)   | Depleted Matrix (F3)  Redox Dark Surface (F6)  | Other (Explain in Remarks)  |
| 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11)   | Depleted Dark Surface (F7)   |   |
| Thick Dark Surface (A11)   | Redox Depressions (F8)   | <sup>3</sup> Indicators of hydrophytic vegetation and   |
| Sandy Mucky Mineral (S1)   | Vernal Pools (F9)  | wetland hydrology must be present,  |
| Sandy Macky Milleral (37)  | Torrier Sold (10)  | unless disturbed or problematic.  |
| Restrictive Layer (if present):  |  |   |
| Type:  | ANY (2)  |   |
| Depth (inches):  |  | Hydric Soil Present? Yes No   |
| Remarks:   |  | Tydio controcontro  |
|  |  |   |
| ANDOLOGY   |  |   |
|  |  |   |
| Wetland Hydrology Indicators:  |  | Consider Indicator (2 or more consider)   |
| Wetland Hydrology Indicators:<br>Primary Indicators (minimum of one required;  |  | Secondary Indicators (2 or more required)   |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  | Salt Crust (B11)   | Water Marks (B1) (Riverine)   |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)   | Salt Crust (B11)<br>Biotic Crust (B12)   | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)   |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)  |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)   | <ul> <li>Water Marks (B1) (Riverine)</li> <li>Sediment Deposits (B2) (Riverine)</li> <li>Drift Deposits (B3) (Riverine)</li> <li>Drainage Patterns (B10)</li> </ul>   |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2)   |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)   | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)  Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)  |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)   | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)   |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7)   | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)                  |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)   | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Saturation Visible on Aerial Imagery (C9)  |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  If the Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)                                  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)                  |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)   | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)                                  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)                  |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  If the Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)                                  | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)                  |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  YesNo  No  No  No  No  Saturation Present? YesNo  No  Saturation Present? YesNo  No  No | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches):                 | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)                  |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  YesNo  No  No  No  No  Saturation Present? YesNo  No  Saturation Present? YesNo  No  No | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Primary Indicators (minimum of one required;  Surface Water (A1)  If the Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No Sincludes capillary fringe)  Describe Recorded Data (stream gauge, monicolater)   | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  If the Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Saturation Present?  Yes No Sincludes capillary fringe)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  Migh Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No Sincludes capillary fringe)  Describe Recorded Data (stream gauge, monicolated)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  Migh Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No Sincludes capillary fringe)  Describe Recorded Data (stream gauge, monicolated)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one required;  Surface Water (A1)  Migh Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No Sincludes capillary fringe)  Describe Recorded Data (stream gauge, monicolated)  | Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks)  Depth (inches): Depth (inches): | Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) |

# WETLAND DETERMINATION DATA FORM - Arid West Region

wet A New A43

| roject/Site:                    |                              | Cree    |              |              | City/Count  |                      | ttitus  |              |                           |            |
|---------------------------------|------------------------------|---------|--------------|--------------|-------------|----------------------|---|--------------|---------------------------|------------|
| pplicant/Owner:                 | •                            |         |              |              |             |                      | State:  | San          | npling Point:             | UP"        |
| vestigator(s):                  | 型                            | Sewal   |              |              | Section, T  | ownship, Ra          | nge:  |              |                           |            |
| ındform (hillslope, te          | errace, etc.):               |         |              |              | Local relie | f (concave,          | convex, none):                                  |              | Sio                       | pe (%):    |
| ibregion (LRR):                 |                              |         |              | Lat:         |             |                      | _ Long:   |              | Datu                      | m:         |
| il Map Unit Name:               |                              |         |              |              |             |                      | NWI o   |              |                           |            |
| e climatic / hydrolog           |                              |         | for this     | time of ve   | ar? Yes     | No                   | (if no. expla                                   | in in Rema   | rks.)                     |            |
| e Vegetation                    |                              |         |              |              |             |                      | 'Normal Circumsta                               |              |                           | / No       |
|                                 |                              |         |              |              |             |                      |   |              |                           |            |
| e Vegetation                    |                              |         |              |              |             |                      | eded, explain any                               |              |                           | atures e   |
|                                 |                              |         | -            |              | 301113111   |                      |   |              |                           |            |
| lydrophytic Vegetat             |                              | Yes     |              |              | ls t        | he Sampled           |   |              |                           |            |
| lydric Soil Present?            |                              | Yes     |              |              | with        | hin a <b>Wetl</b> ar | nd? Ye  | ·            | No                        |            |
| Vetland Hydrology F<br>Remarks: | resent?                      | Yes     | No           |              |             |                      |   |              |                           |            |
| EGETATION -                     |                              |         | Ė            | Absolute     |             | t Indicator          | Dominance Tes                                   |              | •                         |            |
|                                 |                              |         |              |              |             |                      | That Are OBL, F                                 | ACW, or FA   | ic:                       | (A)        |
|                                 |                              |         |              |              |             |                      | Total Number of                                 |              | ~                         | (5)        |
| •                               |                              |         |              |              |             |                      | Species Across                                  | Ali Strata:  |                           | (B)        |
|                                 |                              |         |              |              | = Total C   | over                 | Percent of Domin                                |              |                           | U (AI      |
| iapling/Shrub Stratt.           |                              |         | 1            |              |             |                      | Prevalence Inde                                 | x workshe    | et:                       |            |
|                                 |                              |         |              |              |             |                      | Total % Cov                                     | er of:       | Multiply                  | / by:      |
|                                 | Approximation and the second |         |              |              |             |                      | OBL species                                     |              | x1=                       |            |
|                                 |                              |         |              |              |             |                      | FACW species                                    |              | x 2 =                     |            |
|                                 |                              |         |              |              |             |                      | FAC species                                     |              | x3=                       |            |
|                                 |                              |         |              |              | = Total C   | over                 | FACU species                                    |              | x4=                       |            |
| erb Stratum (Plot               |                              |         |              |              |             | FAIN                 | UPL species                                     |              | x5=                       |            |
| Sein                            | - M.c.                       | TO C-AU | 2            | 70           |             | 75/                  | Column Totals:                                  |              | (A)                       | (B         |
| P                               | ~~~                          | AFTUS   |              | 32           |             | FAC                  | Downlance                                       | Index = Bi   | /A =                      |            |
| PL                              | ,                            |         | -            |              |             | 1140                 | Hydrophytic Ve                                  |              |                           |            |
|                                 |                              |         | <del> </del> |              |             |                      | Dominance                                       | _            |                           |            |
|                                 |                              |         | -            |              |             |                      | Prevalence                                      |              |                           |            |
|                                 |                              |         |              |              |             |                      | Morphologic                                     | al Adaptatio | ns¹ (Provide              | supporting |
|                                 |                              |         |              |              |             |                      |   |              | n a separate              | •          |
|                                 |                              |         |              |              | = Total C   | over                 | Problematic                                     | nyaropnytic  | : Vegetation <sup>1</sup> | (explain)  |
| Voody Vine Stratum              |                              |         |              |              |             |                      | <sup>1</sup> Indicators of hydbe present, unles |              |                           |            |
|                                 |                              |         | -            |              |             |                      |   | arounded     | -                         | 100        |
|                                 |                              | 723     |              |              | = Total Co  |                      | Hydrophytic<br>Vegetation                       | <b>W</b>     | A.5                       |            |
| 6 Bare Ground in He             | erb Stratum                  | - 9/    | Cover of     | of Biotic Ci | rust        |                      | Present?  | Yes          | No                        |            |
|                                 |                              |         |              |              |             |                      |   |              |                           |            |

Sampling Point: DP\$5

| Profile Description: (Describe to the depth nee                               | ded to document the indicator or c           | onfirm the absence of indicators.)                     |
|---|--|--|
| Depth Matrix  | Redox Features                               | T. Aug. Bounds   |
| 1   | 1  | oc <sup>2</sup> Texture Remarks                        |
| 6 543/2   | come and Fact                                |  |
| 16 /W/2/1   |  | - Syrva Mu   |
|   | •  |  |
|   |  |  |
|   |  |  |
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|   |  |  |
|   |  |  |
|   |  |  |
|   |  | 2  |
| ¹Type: C=Concentration, D=Depletion, RM=Redu                                  |  |  |
| Hydric Soil Indicators: (Applicable to all LRRs,                              |  | Indicators for Problematic Hydric Soils <sup>3</sup> : |
| Histosol (A1)   | Sandy Redox (S5)                             | 1 cm Muck (A9) (LRR C)                                 |
| Histic Epipedon (A2)  | Stripped Matrix (S6)                         | 2 cm Muck (A10) (LRR B)                                |
| Black Histic (A3)   | Loamy Mucky Mineral (F1)                     | Reduced Vertic (F18)                                   |
| Hydrogen Sulfide (A4)   | Loamy Gleyed Matrix (F2)                     | Red Parent Material (TF2) Other (Explain in Remarks)   |
| Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D)                         | Depleted Matrix (F3) Redox Dark Surface (F6) | Outer (Explain in Remains)                             |
| Depleted Below Dark Surface (A11)   | Depleted Dark Surface (F7)                   |  |
| Thick Dark Surface (A12)  | Redox Depressions (F8)                       | <sup>3</sup> Indicators of hydrophytic vegetation and  |
| Sandy Mucky Mineral (S1)  | Vernal Pools (F9)                            | wetland hydrology must be present,                     |
| Sandy Gleyed Matrix (S4)  | ,      | unless disturbed or problematic.                       |
| Restrictive Layer (if present):   |  |  |
| Type:   |  |  |
| Depth (inches):   |  | Hydric Soil Present? Yes No                            |
| Remarks:  |  |  |
| HYDROLOGY   |  |  |
|   |  |  |
| Wetland Hydrology Indicators:   | t all that applied                           | Sanandary Indicators (2 or mara required)              |
| Primary Indicators (minimum of one required; chec                             |  | Secondary Indicators (2 or more required)              |
| Surface Water (A1)  | Salt Crust (B11)                             | Water Marks (B1) (Riverine)                            |
| — High Water Table (A2)   | Biotic Crust (B12)                           | Sediment Deposits (B2) (Riverine)                      |
| Saturation (A3)   | Aquatic Invertebrates (B13)                  | Drift Deposits (B3) (Riverine)                         |
| Water Marks (B1) (Nonriverine)  | Hydrogen Sulfide Odor (C1)                   | Drainage Patterns (B10)                                |
| Sediment Deposits (B2) (Nonriverine)  | Oxidized Rhizospheres along Livin            |  |
| Drift Deposits (B3) (Nonriverine)   | Presence of Reduced Iron (C4)                | Crayfish Burrows (C8)                                  |
| Surface Soil Cracks (B6)  | Recent Iron Reduction in Tilled Soi          |  |
| Inundation Visible on Aerial Imagery (B7)                                     | Thin Muck Surface (C7)                       | Shallow Aquitard (D3)                                  |
| Water-Stained Leaves (B9)   | Other (Explain in Remarks)                   | FAC-Neutral Test (D5)                                  |
| Field Observations:   | / l  |  |
| Surface Water Present? Yes No   | Depth (inches):                              |  |
| Water Table Present? Yes No   | Depth (inches):                              |  |
| Saturation Present? Yes No  | Depth (inches): — 4                          | Wetland Hydrology Present? Yes No                      |
| (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring | wall parial photoe previous inspecti         | ions) if available:                                    |
| Describe Recorded Data (Stream gauge, monitorn                                | wen, denar priotos, previous irispecti       | ions), ii avallabis.                                   |
|   |  |  |
| Remarks:  |  |  |
|   |  |  |
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wetland T3

# WETLAND DETERMINATION DATA FORM - Arid West Region

| roject/Site:                                     |                 | Cre            | 9           |                     | City/County | <u> </u>    | 1/11-0-7   | _ Sampling Date:                                   | 0-13           |
|--|-----------------|----------------|-------------|---------------------|-------------|-------------|--|--|----------------|
| pplicant/Owner:                                  |                 |                |             |                     | _           |             | State: WA  | _ Sampling Point:                                  | DP#            |
| vestigator(s):                                   | Zd              | Sewal          |             |                     |             |             | nge:   |  |                |
| andform (hillslope, terrac                       | e atr.).        |                |             |                     |             |             | convex, none):   |  | %):            |
| ubregion (LRR):                                  |                 |                |             |                     |             |             |  |  |                |
|  |                 |                |             |                     |             |             |  |  |                |
| oil Map Unit Name:                               |                 |                |             |                     |             |             | NWI classif  | icauori:   |                |
| re climatic / hydrologic co                      |                 |                | al for this | ume or yea          | err tes     | 140         | (ii lib, explain iii   | remarks.)  |                |
| re Vegetation, So                                |                 |                |             |                     |             |             | "Normal Circumstances"   |  | . No           |
| re Vegetation, So                                | <del>il</del> , | or Hydrology _ | n           | aturally pro        | blematic?   | (If ne      | eded, explain any answ   | vers in Remarks.)                                  |                |
| UMMARY OF FIND                                   | INGS –          | Attach site    | map :       | showing             | samplin     | g point i   | ocations, transect   | s, important featu                                 | ıres, etc      |
|  |                 | Yes            | 1           | ·                   |             |             |  |  |                |
| Hydrophytic Vegetation F<br>Hydric Soil Present? | Tesent          | Yes            | / N         | )                   | 3           | e Sampled   |  |  |                |
| Wetland Hydrology Prese                          | ent?            | Yes            |             | ·                   | with        | in a Wetlar | nd? Yes  | No   |                |
| Remarks:   |                 |                |             |                     |             |             |  |  |                |
| EGETATION - Use                                  |                 |                |             | Absolute<br>% Cover | Species?    |             | Dominance Test wor<br>Number of Dominant<br>That Are OBL, FACW | Species -  | (A)            |
| l  |                 |                |             |                     |             |             | Inat Are OBL, FACYV  | dr FAC:  | (A)            |
| 2  |                 |                |             | ·                   |             |             | Total Number of Dom  |  | (D)            |
| 3<br>4   |                 |                |             |                     |             |             | Species Across All St  |  | (B)            |
| <del></del>                                      |                 |                |             |                     | = Total Co  |             | Percent of Dominant S<br>That Are OBL, FACW                    | Species /LL  | (A/B           |
| Sapling/Shrub Stratum (                          |                 |                | <b>山</b>    | 20                  |             | En          | That Are OBL, FACW   | , OI FAC.  | (AVB           |
| 1. Populs  | boten           | sm             | -           |                     |             | 770         | Prevalence Index wo  |  |                |
| 2  |                 |                |             | ·                   |             |             | 1  | Multiply by  |                |
| 3  |                 |                | -           |                     |             |             |  | x1=  |                |
|  |                 |                | +           |                     |             |             | S  | x 2 =  | -              |
|  |                 |                |             |                     |             |             | 1  | x3=  |                |
| lerb Stratum (Plot size:                         |                 | . )            |             |                     | = Total Co  |             |  | x4=<br>x5=   |                |
| Pholos   | s an            | rolly          |             | 100                 |             | FAM         |  | (A)  |                |
| 2  |                 |                |             |                     |             |             |  |  | (5/            |
| ). <u></u>                                       |                 |                |             |                     |             |             |  | x = B/A =  |                |
|  |                 |                |             |                     |             |             | Hydrophytic Vegetat  | ion indicators:                                    |                |
| 5,   |                 |                |             |                     |             |             | Dominance Test i   |  |                |
| 3  |                 |                |             |                     |             |             | Prevalence Index   |  |                |
|  |                 |                | -           |                     |             |             | Morphological Ad   | aptations¹ (Provide sup<br>ks or on a separate she | porting<br>et) |
|  |                 |                | -           |                     |             |             | 1  | ophytic Vegetation <sup>1</sup> (Ex                | •              |
| Woody Vine Stratum (Pl                           | ot eize:        | 3              |             |                     | = Total Co  | ver         |  |  |                |
|  |                 |                |             |                     |             |             | ¹Indicators of hydric se                                       | oil and wetland hydrolog                           | av must        |
| 2  |                 |                |             |                     |             |             | be present, unless dis   | turbed or problematic.                             |                |
|  |                 |                |             |                     | = Total Co  | ver         | Hydrophytic  |  |                |
| V Dana Carried to black of                       | Showshire       | 12             | C           |                     |             |             | Vegetation   | - N-   |                |
| % Bare Ground in Herb S                          | musu            |                | Cover       | of Biotic Cr        | usi         |             | Present? Y   | es No  |                |
| Remarks:   |                 |                |             |                     |             |             |  |  |                |
|  |                 |                |             |                     |             |             |  |  |                |
|  |                 |                |             |                     |             |             |  |  |                |

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mpling Point:

| Profile Desc  | cription: (Describe to                  | the depth nee     | ded to docur              | nent the in | dicator     | or confirm       | n the absence of                      | indicators.)   |
|---------------|---|-------------------|---------------------------|-------------|-------------|------------------|---------------------------------------|--|
| Depth         | Matrix                                  |                   | Redo                      | x Features  |             |                  |                                       |  |
| (inches)      | Color (moist)                           | % Col             | or (moist)                | _%          | Type        | Loc <sup>2</sup> | Texture                               | Remarks  |
| 14            | Ivala                                   |                   | C                         | <u>~~</u>   |             |                  | 95                                    |  |
|               |   |                   |                           |             |             |                  |                                       |  |
| -             | -                                       |                   |                           |             |             |                  |                                       |  |
|               |   |                   |                           |             |             |                  |                                       |  |
|               |   |                   |                           |             |             |                  |                                       |  |
| l             |   |                   |                           | i           |             |                  | · · · · · · · · · · · · · · · · · · · |  |
|               |   |                   |                           |             |             |                  |                                       |  |
|               |   | Tell tell         |                           |             |             |                  |                                       |  |
|               |   | 7                 |                           | ·           | -,          |                  |                                       |  |
|               |   |                   | ļ                         |             |             |                  |                                       |  |
|               | oncentration, D=Deple                   |                   |                           |             |             | d Sand Gr        |                                       | on: PL=Pore Lining, M=Matrix.                          |
| Hydric Soil   | Indicators: (Applical                   | ble to all LRRs,  | unless other              | wise note   | d.)         |                  |                                       | r Problematic Hydric Solis³:                           |
| Histosol      | (A1)                                    |                   | Sandy Red                 |             |             |                  |                                       | * (A9) (LRR C)   |
|               | oipedon (A2)                            |                   | Stripped Ma               | • •         |             |                  | _                                     | * (A10) (LRR B)  |
|               | istic (A3)                              |                   | Loamy Muc                 | -           |             |                  |                                       | Vertic (F18)   |
|               | n Sulfide (A4)                          |                   | Loamy Gley                |             | F2)         |                  | _                                     | nt Material (TF2)                                      |
|               | Layers (A5) (LRR C)                     |                   | Depleted M                |             | -0)         |                  | Other (Ex                             | plain in Remarks)                                      |
|               | ick (A9) (LRR D)                        |                   | Redox Dark                |             | -           |                  |                                       |  |
|               | Below Dark Surface                      | (A11)             | Depleted Da               |             |             |                  | 3Indiantam of                         | hydrophydic vegatation and                             |
|               | ark Surface (A12)<br>fucky Mineral (S1) | _                 | Redox Depr<br>Vernal Pool |             | 0)          |                  |                                       | hydrophytic vegetation and<br>drology must be present, |
|               |   | *****             | vemai rooi                | s (ra)      |             |                  | -                                     | urbed or problematic.                                  |
|               | Gleyed Matrix (S4)  Layer (if present): |                   |                           |             |             |                  | Timoso dista                          | abou or problemate.                                    |
| _             | Layer (ii present).                     |                   |                           |             |             |                  | 1                                     |  |
| Type:         | ab a a V                                |                   |                           |             |             |                  | Hydric Soll Pr                        | esent? Yes No  |
| Depth (in     | cnes):                                  |                   |                           |             |             |                  | Hydric Soli Fit                       | esenti ies no  |
| Remarks:      |   |                   |                           |             |             |                  |                                       |  |
|               |   |                   |                           |             |             |                  |                                       |  |
|               |   |                   |                           |             |             |                  |                                       |  |
|               |   |                   |                           |             |             |                  |                                       |  |
| HYDROLO       | cv                                      |                   |                           |             |             |                  |                                       |  |
|               |   |                   |                           |             |             |                  |                                       |  |
|               | drology Indicators:                     | Acceptance        | 2001                      |             |             |                  | 0                                     | - 1- 40-A (0   |
|               | ators (minimum of one                   | e required; checi |                           |             |             |                  |                                       | ry Indicators (2 or more required)                     |
| Surface       | Water (A1)                              | 14-               | Salt Crust                | (B11)       |             |                  |                                       | er Marks (B1) (Riverine)                               |
| High Wa       | ter Table (A2)                          | 8-                | Biotic Crus               | t (B12)     |             |                  | _                                     | ment Deposits (B2) (Riverine)                          |
| Saturation    | on (A3)                                 | 1.                | Aquatic Inv               |             | , ,         |                  |                                       | Deposits (B3) (Riverine)                               |
| Water M       | arks (B1) (Nonriverin                   | e)                | _ Hydrogen                | Sulfide Odd | or (C1)     |                  | Drain                                 | nage Patterns (B10)                                    |
| Sedimer       | nt Deposits (B2) (Nonr                  | iverine)          | T                         | hizosphere  | -           | _                | · · — ·                               | Season Water Table (C2)                                |
| Drift Dep     | oosits (B3) (Nonriveri                  | ne)               | Presence of               |             | •           | •                | 1                                     | rfish Burrows (C8)                                     |
| Surface       | Soil Cracks (B6)                        |                   | Recent Iro                | n Reduction | n in Tilled | Soils (C6        | S) Satu                               | ration Visible on Aerial Imagery (C9)                  |
| Inundation    | on Visible on Aerial Im                 | agery (B7)        | Thin Muck                 | Surface (C  | 7)          |                  | Shall                                 | low Aquitard (D3)                                      |
| Water-S       | tained Leaves (B9)                      | 9                 | Other (Exp                | lain in Ren | narks)      |                  | FAC                                   | -Neutral Test (D5)                                     |
| Field Obser   | vations:                                |                   |                           |             |             |                  |                                       |  |
| Surface Wat   | er Present? Yes                         | s No              | Depth (inc                | :hes):      |             | _                |                                       |  |
| Water Table   | Present? Yes                            | s No              | Depth (inc                | ches):      |             |                  |                                       |  |
| Saturation P  |   |                   | Depth (inc                |             | 14          | Wetla            | and Hydrology P                       | resent? Yes No   |
| (includes car | oillary fringe)                         |                   |                           |             |             |                  |                                       |  |
| Describe Re   | corded Data (stream g                   | auge, monitoring  | well, aerial p            | hotos, pre  | vious ins   | pections),       | if available:                         |  |
|               |   |                   |                           |             |             |                  |                                       |  |
| Remarks:      |   |                   |                           |             |             |                  |                                       |  |
|               |   |                   |                           |             |             |                  |                                       |  |
|               |   |                   |                           |             |             |                  |                                       |  |
|               |   |                   |                           |             |             |                  |                                       |  |
|               |   |                   |                           |             |             |                  |                                       |  |

we+ C

Arid West - Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

| Project/Site: Fowler                     | Creek            | City/County: K                                  | stt.tes                                       | Sampling Date: 10-18-                                    |
|--|------------------|---|---|--|
| Voolicant/Owner:                         |                  |   | State: WA                                     | Sampling Point DP#                                       |
| nvestigator(s):                          | sewall           | Section, Township, R                            | ange:   | 21.10  |
| andform (hillstope, terrace, etc.):      |                  | Local relief (concave,                          | convex, none):                                | Slope (%):   |
| ubregion (LRR):                          |                  |   | Long:   | Datum:   |
| oil Map Unit Name:                       |                  |   | NWI classif                                   | ication:   |
| re climatic / hydrologic conditions on t |                  | of year? YesNo                                  | (If no, explain in                            | Remarks.)  |
| re Vegetation, Soil, or                  |                  |   | "Normal Circumstances"                        | present? Yes V No  |
| re Vegetation, Soil, or                  |                  |   | eeded, explain any answ                       |  |
| UMMARY OF FINDINGS - A                   |                  |   | locations, transect                           | s, important features, etc                               |
| Hydrophytic Vegetation Present?          | Yes No           | Is the Sample                                   |   |  |
| Hydric Soil Present?                     | YesNo            | within a Wetla                                  |   | No   |
| Wetland Hydrology Present?               | Yes No           |   |   |  |
| Remarks:                                 |                  |   |   |  |
| EGETATION — Use scientific               | names of plants. |   |   |  |
| Tree Stratum (Plot size:                 |                  | lute Dominant Indicator<br>over Species? Status | Number of Dominant That Are OBL, FACW         | Species /  |
| 3.                                       |                  |   | Total Number of Dom<br>Species Across All Str | ,  |
| 1.                                       |                  | = Total Cover                                   | Percent of Dominant S<br>That Are OBL, FACW   |  |
| Sapling/Shrub Stratum (Plot size:        |                  |   | Prevalence Index wo                           | el/chest*  |
|  |                  |   | Total % Cover of:                             |  |
| 2  |                  |   | .   | x1=  |
| l  |                  |   |   | x2=  |
| 5.                                       |                  |   | 1,000,000                                     | x3=  |
| ·  |                  | = Total Cover                                   | . 1   | x 4 =  |
| Herb Stratum (Plot size:                 | )                | 1-1   | UPL species                                   | x5=  |
| . Phalms are                             | 100 16           | w /// /   | Column Totals:                                | (A) (B)  |
| 2  | <del></del>      | <del></del>                                     | . Dlanca lada                                 | x = 8/A =  |
|  |                  |   | Hydrophytic Vegetal                           |  |
|  |                  |   |   |  |
| 5  |                  |   | Prevalence Index                              |  |
|  |                  |   | ·   —   | aptations <sup>1</sup> (Provide supporting               |
|  |                  |   | data in Remar                                 | ks or on a separate sheet)                               |
| J  |                  | = Total Cover                                   | Problematic Hydr                              | ophytic Vegetation <sup>1</sup> (Explain)                |
| Woody Vine Stratum (Plot size:           |                  | = Total Color                                   |   |  |
|  |                  |   |   | oil and wetland hydrology must<br>turbed or problematic. |
| 2  | 1                |   | ve present, umess dis                         | пара и ргожелава.  |
|  |                  | = Total Cover                                   | Hydrophytic<br>Vegetation                     |  |
| % Bare Ground in Herb Stratum            | % Cover of Blo   | tic Crust                                       |   | es No  |
| Remarks:                                 |                  |   |   |  |
|  |                  |   |   |  |
|  |                  |   |   |  |
|  |                  |   |   |  |
|  |                  |   |   |  |

**US Army Corps of Engineers** 

| Sampling Point: | DP47 |
|-----------------|------|
|-----------------|------|

## SOIL

|                   | -  | th need      |  | confirm the absence of indicators.)  |
|-------------------|--|--------------|--|--|
| Depth<br>(inches) | Matrix Color (moist) %                             | Colo         | Redox Features r (moist) % Type <sup>1</sup> L | oc <sup>2</sup> Texture Remarks  |
| (inches)          | 10 IN 2/2  |              | cal  | - CANADA - C |
| 14                | 1011046  |              |  | 93   |
|                   |  |              |  |  |
|                   |  |              |  |  |
| N=                |  |              |  |  |
| k======           |  |              |  |  |
| ·                 |  |              |  |  |
|                   |  |              |  |  |
|                   |  |              |  |  |
| ·                 |  |              |  |  |
|                   |  |              |  | 2  |
|                   |  |              | d Matrix, CS=Covered or Coated S               |  |
| _                 | ndicators: (Applicable to all                      |              |  | Indicators for Problematic Hydric Solls <sup>3</sup> :   |
| Histosol (        | •  |              | Sandy Redox (S5)                               | 1 cm Muck (A9) (LRR C)   |
|                   | pedon (A2)   |              | Stripped Matrix (S6)                           | 2 cm Muck (A10) (LRR B)  |
| Black His         | ` '  |              | Loamy Mucky Mineral (F1)                       | Reduced Vertic (F18)   |
|                   | Sulfide (A4)                                       |              | Loamy Gleyed Matrix (F2)                       | Red Parent Material (TF2)  |
|                   | Layers (A5) (LRR C)                                |              | Depleted Matrix (F3) Redox Dark Surface (F6)   | Other (Explain in Remarks)   |
| _                 | k (A9) ( <b>LRR D)</b><br>Below Dark Surface (A11) | -1           | Depleted Dark Surface (F7)                     |  |
|                   | k Surface (A12)                                    |              | Redox Depressions (F8)                         | <sup>3</sup> Indicators of hydrophytic vegetation and  |
|                   | ucky Mineral (S1)                                  |              | Vernal Pools (F9)                              | wetland hydrology must be present,   |
|                   | eyed Matrix (S4)                                   |              | volva, volva (vo)                              | unless disturbed or problematic.   |
|                   | ayer (if present):                                 | -            |  |  |
| Type:             |  |              |  |  |
|                   |  |              |  | Hydric Soil Present? Yes No  |
| Remarks:          | nes):  |              |  | Nyune son Fresent 1 Tes No   |
| HYDROLOG          |  |              |  |  |
|                   | rology Indicators:                                 |              |  | 01100  |
|                   |  | d obook      | all that annie.                                | Secondary Indicators (2 or more required)  |
|                   | ators (minimum of one require                      | u, check     |  |  |
| l <del></del>     | Vater (A1)   | -            | Salt Crust (B11)                               | Water Marks (B1) (Riverine)  |
|                   | er Table (A2)                                      |              | Biotic Crust (B12)                             | Sediment Deposits (B2) (Riverine)  |
| Saturation        | ` '  | -            | Aquatic Invertebrates (B13)                    | Drift Deposits (B3) (Riverine)   |
|                   | rks (B1) (Nonriverine)                             | -            | Hydrogen Sulfide Odor (C1)                     | Drainage Patterns (B10)  |
|                   | Deposits (B2) (Nonriverine)                        | -            | Oxidized Rhizospheres along Livi               |  |
|                   | osits (B3) (Nonriverine)                           | -            | Presence of Reduced Iron (C4)                  | Crayfish Burrows (C8)  |
|                   | Soil Cracks (B6)                                   |              | Recent Iron Reduction in Tilled Se             |  |
|                   | n Visible on Aerial Imagery (B                     | <b>'</b> ) - | Thin Muck Surface (C7)                         | Shallow Aquitard (D3)  |
|                   | ained Leaves (B9)                                  |              | Other (Explain in Remarks)                     | FAC-Neutral Test (D5)  |
| Field Observ      | ations:  |              |  |  |
| Surface Wate      | r Present? Yes                                     | No 🚄         | _ Depth (inches):                              |  |
| Water Table F     | Present? Yes                                       | No           | Depth (inches):                                |  |
| Saturation Pre    | esent? Yes /                                       | No           | Depth (inches):                                | Wetland Hydrology Present? Yes No  |
| (includes capi    |  |              |  |  |
| Describe Rec      | orded Data (stream gauge, mo                       | nitoring     | well, aerial photos, previous inspec           | tions), it available:  |
|                   |  |              |  |  |
| Remarks:          |  |              |  |  |
|                   |  |              |  |  |
|                   |  |              |  |  |
|                   |  |              |  |  |
|                   |  |              |  |  |
|                   |  |              |  |  |

|                         | <b>A</b> |
|-------------------------|----------|
| Wetland name or number_ | 17       |

Ratings

# **RATING SUMMARY – Eastern Washington**

| Name of wetland (or ID Rated by Solution Rated by Solution Rated by Solution Rated for rational Rated Bource of base as Source of base as Solution Rate Rate Rate Rate Rate Rate Rate Rate | ng port                    | Trained by We  out the figures                                | Ecology? | es No Date  ple HGM class  ures can be co | te of training 9-17 es?YN mbined).   |
|--|----------------------------|---|----------|---|--|
| 1. Category of w   |                            | i on FUNCTIO<br>core = 22-27<br>core = 19-21<br>score = 16-18 |          |   | Score for each function based on three ratings (order of ratings is not important) |
| FUNCTION   | Improving<br>Water Quality | Hydrologic  | Habitat  |   | 9 = H,H,H<br>8 = H,H,M<br>7 = H,H,L  |
|  |                            | e the appropriate i   | ratings  | 7   | 7 = H,M,M  |
| Site Potential   | H M L                      | H (M) L   | (H) M L  |   | 6 = H,M,L  |
| Landscape Potential  | H M L                      | H M L   | H M L    |   | 6 = M,M,M  |
| Value  | H W L                      | H M L   | H) M L   | TOTAL                                     | 5 = H,L,L  |
| Score Based on   | 1                          | 1   | a        | \$10.75 to \$10.50                        | 5 = M,M,L  |

2. Category based on SPECIAL CHARACTERISTICS of wetland

| ellARAGIERS(IC                             | CATEGORY Circle the appropriate category |
|--|--|
| Vernal Pools                               | 11 111                                   |
| Alkali                                     | I  |
| Wetland of High Conservation Value         | I  |
| Bog and Calcareous Fens                    | I  |
| Old Growth or Mature Forest – slow growing | I  |
| Aspen Forest                               | I  |
| Old Growth or Mature Forest – fast growing | 11                                       |
| Floodplain forest                          | II                                       |
| None of the above                          |  |
|  |  |

3 = L,L,L

# Maps and figures required to answer questions correctly for Eastern Washington Depressional Wetlands

| Map of  |                                       | To answer questions: | Figure # |
|---|---------------------------------------|----------------------|----------|
| Cowardin plant classes and classes of em  |                                       | D 1.3, H 1.1, H 1.5  |          |
| Hydroperiods (including area of open wa   | er for H 1.3)                         | D 1.4, H 1.2, H 1.3  |          |
| Location of outlet (can be added to map   | of hydroperiods)                      | D 1.1, D 4.1         |          |
| Boundary of area within 150 ft of the we  | land (can be added to another figure) | D 2.2, D 5.2         |          |
| Map of the contributing basin   |                                       | D 5.3                |          |
| 1 km Polygon: Area that extends 1 km fro<br>polygons for accessible habitat and undis |                                       | H 2.1, H 2.2, H 2.3  |          |
| Screen capture of map of 303(d) listed w  |                                       | D 3.1, D 3.2         |          |
| Screen capture of list of TMDLs for WRIA  | in which wetland is found (website)   | D 3.3                |          |

## Riverine Wetlands

| Map of:   | To answer questions: | Figure # |
|---|----------------------|----------|
| Cowardin plant classes and classes of emergents   | H 1.1, H 1.5         |          |
| Hydroperiods  | H 1.2, H 1.3         |          |
| Ponded depressions  | R 1.1                |          |
| Boundary of area within 150 ft of the wetland (can be added to another figure)  | R 2.4                |          |
| Map of the contributing basin   | R 2.2, R 2.3, R 5.2  |          |
| Plant cover of trees, shrubs, and herbaceous plants   | R 1.2, R 4.2         |          |
| Width of wetland vs. width of stream (can be added to another figure)   | R 4.1                |          |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat | H 2.1, H 2.2, H 2.3  |          |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)   | R 3.1                |          |
| Screen capture of list of TMDLs for WRIA in which wetland is found (website)  | R 3.2, R 3.3         |          |

## **Lake Fringe Wetlands**

| Маркой  |                                      | (c) answer questions       | Figure # |
|---|--------------------------------------|----------------------------|----------|
| Cowardin plant classes and classes of emer  |                                      | L 1.1, L 4.1, H 1.1, H 1.5 |          |
| Plant cover of trees, shrubs, and herbaceou   | us plants                            | L 1.2                      |          |
| Boundary of area within 150 ft of the wella   | and (can be added to another figure) | L 2.2                      |          |
| 1 km Polygon: Area that extends 1 km from polygons for accessible habitat and undistu | n entire wetland edge - including    | H 2.1, H 2.2, H 2.3        |          |
| Screen capture of map of 303(d) listed water  | ers in basin (from Ecology website)  | L 3.1, L 3.2               |          |
| Screen capture of list of TMDLs for WRIA in   | which wetland is found (website)     | L 3.3                      |          |

## Slope Wetlands

| Map of  |                                       | To answer questions: | Figure # |
|---|---------------------------------------|----------------------|----------|
| Cowardin plant classes and classes of em  |                                       | H 1.1, H 1.5         |          |
| Hydroperiods  |                                       | H 1.2, H 1.3         |          |
| Plant cover of dense trees, shrubs, and I   | erbaceous plants                      | S 1.3                |          |
| Plant cover of <b>dense, rigid</b> trees, shrubs, (can be added to figure above)      | and herbaceous plants                 | S 4.1                |          |
| Boundary of area within 150 ft of the we  | land (can be added to another figure) | S 2.1, S 5.1         |          |
| 1 km Polygon: Area that extends 1 km fro<br>polygons for accessible habitat and undis | m entire wetland edge - including     | H 2.1, H 2.2, H 2.3  |          |
| Screen capture of map of 303(d) listed w  | aters in basin (from Ecology website) | S 3.1, S 3.2         |          |
| Screen capture of list of TMDLs for WRIA  | in which wetland is found (website)   | S 3.3                |          |

# **HGM Classification of Wetland in Eastern Washington**

For questions 1-4, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-4 apply, and go to Question 5.

| 1. | The vegetated part of the wetl of permanent open water (with   | f the following criteria?<br>and is on the water side of the Ordinary High Water Mark of a body<br>hout any plants on the surface) that is at least 20 ac (8 ha) in size<br>r area is deeper than 10 ft (3 m) |
|----|--|---|
| (  | NO - go to 2   | YES - The wetland class is Lake Fringe (Lacustrine Fringe)  |
| 2. |  | e can be very gradual), vetland in one direction (unidirectional) and usually comes from as sheetflow, or in a swale without distinct banks;  |
|    | NO - go to 3  NOTE: Surface water does not possible shallow depressions or behind hudeep).                       | YES – The wetland class is <b>Slope</b> nd in these type of wetlands except occasionally in very small and mmocks (depressions are usually <3 ft diameter and less than 1 foot                                |
| 3. | Does the entire wetland unit mee The unit is in a valley, or strea stream or river; The overbank flooding occurs | m channel, where it gets inundated by overbank flooding from that   |
|    | NO - go to 4 NOTE: The Riverine wetland can flooding.  | YES – The wetland class is <b>Riverine</b> contain depressions that are filled with water when the river is not   |
| 4. | Is the entire wetland unit in a top surface, at some time during the y of the wetland.                           | ographic depression in which water ponds, or is saturated to the ear. This means that any outlet, if present, is higher than the interior   |
|    | NO – go to 5   | YES - The wetland class is Depressional   |
| 5. |  | ficult to classify and probably contains several different HGM base of a slope may grade into a riverine floodplain, or a small   |

5. 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 1-4 APPLY TO DIFFERENT AREAS IN THE WETLAND 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.

A

**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 wetland unit; classify the wetland using the class that represents more than 90% of the total area.

| HGM classes within the | wetland unit being rated                     | HGM Class to use in rating |
|------------------------|--|----------------------------|
| Slope +                | Riverine                                     | Riverine                   |
| Slope + D              | epressional                                  | Depressional               |
| Slope + L              | ake Fringe                                   | Lake Fringe                |
| •                      | he riverine portion is within of depression) | Depressional               |
| Depressiona            | + Lake Fringe                                | Depressional               |
| Riverine +             | Lake Fringe                                  | Riverine                   |

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.

| PRP   | ESSIONAL WIFTLANDS   | Points               |
|---|--|----------------------|
| Water Quality Functions - Indicators th             | at the site functions to improve water quality                         | lony it<br>score per |
|   |  | (int)                |
| D 1.0. Does the site have the potential to im       | prove water quality?   |                      |
| D 1.1. Characteristics of surface water outflows    | from the wetland:  |                      |
| Wetland has no surface water outlet                 | points = 5   |                      |
| Wetland has an intermittently flowing out           |  |                      |
| Wetland has a highly constricted permane            | ently flowing outlet points = 3  | 7                    |
| Wetland has a permanently flowing, unco             |  |                      |
| D 1.2. The soil 2 in below the surface (or duff lay | er) is true clay or true organic (use NRCS definitions of soils)       |                      |
|   | YES = 3 NO = 8   |                      |
| D 1.3. Characteristics of persistent vegetation (Fi | mergent, Scrub-shrub, and/or Forested Cowardin classes)                |                      |
| Wetland has persistent, ungrazed, vegetal           | tion for $> \frac{2}{3}$ of area points = 5                            | 1                    |
| Wetland has persistent, ungrazed, vegetal           |  | İ                    |
| Wetland has persistent, ungrazed vegetati           | ion from $\frac{1}{10}$ to $< \frac{1}{3}$ of area points = 1          | 5                    |
| Wetland has persistent, ungrazed vegetal            |  |                      |
| D 1.4. Characteristics of seasonal ponding or invi  |  |                      |
|   | every year. Do not count the area that is permanently ponded.          |                      |
| Area seasonally ponded is > ½ total area            |  |                      |
| Area seasonally ponded is ¼ - ½ total are           |  | <b>)</b>             |
| Area seasonally ponded is < 1/4 total area          |  | (                    |
| 7 il cu sedsorium, portue in 174 cotto area         |  |                      |
| Total for D 1                                       | Add the points in the boxes above                                      | 9                    |
| Rating of Site Potential If score is: 12-16 = H     | 6-11 = M 0-5 = L Record the rating on to                               | he first page        |
|   |  |                      |
| 0.2.0. Does the landscape have the potential        | il to support the water quality function of the site?                  |                      |
|   |  |                      |
| D 2.1. Does the wetland receive stormwater disc     | tharges? Yes = 1 No = 0  |                      |
| D 2.2. Is > 10% of the area within 150 ft of the w  |  | 1                    |
| D 2.3. Are there septic systems within 250 ft of    | he wetland? Yes = $1 No = 0$   | 0                    |
| D 2.4. Are there other sources of pollutants com    | ing into the wetland that are not listed in questions                  |                      |
| D 2.1- D 2.3? Source                                | Yes = 1 (No = 0)   | C .                  |
| Total for D 2                                       | Add the points in the boxes above                                      | 2                    |
|   |  |                      |
| Rating of Landscape Potential If score is:3 or      | TATE TO THE TRUTH OF L   | ne jii st page       |
| D 3.0. Is the water quality improvement pro         | vided by the site valuable to society?                                 |                      |
| D 3.1. Does the wetland discharge directly (i.e.,)  | within 1 mi) to a stream, river, or lake that is on the 303(d) list?   |                      |
|   | Yes = 1 (No = 0)   | 0                    |
| D 3.2 Is the wetland in a hasin or sub-basin whe    | re water quality is an issue in some aquatic resource [303(d) list,    |                      |
| eutrophic lakes, problems with nuisance             |  | /                    |
| D 3.3 Has the site been identified in a watersher   | d or local plan as important for maintaining water quality (answer YES |                      |
| if there is a TMDL for the drainage or basis        |  | 0                    |
| Total for D 3                                       | Add the points in the boxes above                                      |                      |
|   |  |                      |
| Rating of Value If score is: 2-4 = H 1 = W          | 10 = L Record the rating on ti   | he first page        |

| ् अवधा  | ESSIONAL AVIETLANDS  | Poleita                   |
|---|--|---------------------------|
| Hydrologic Functions - Indicators that  | he site functions to reduce flooding and erosion.  | (only:1 score<br>per box! |
|   |  |                           |
| D 4.0. Does the site have the potential to re   | duce flooding and erosion?   |                           |
| D 4.1. Characteristics of surface water outflows                                      | from the wetland:  |                           |
| Wetland has no surface water outlet   | points = 8   |                           |
| Wetland has an intermittently flowing ou  | tlet points = 4  | b                         |
| Wetland has a highly constricted perman   | ently flowing outlet points = 4  |                           |
| Wetland has a permanently flowing unco<br>(if outlet is a ditch and not permanently f | nstricted surface outlet points = 0<br>lowing treat wetland as "intermittently flowing")   | 4                         |
| D 4.2. Depth of storage during wet periods: Esti                                      | mate the height of ponding above the bottom of the outlet. For   |                           |
|   | e surface of permanent water or deepest part (if dry).   |                           |
|   | point in wetland or the surface of permanent ponding points = 8  |                           |
|   | owest point in wetland or the surface of permanent pondingpoints = 6   |                           |
| The wetland is a headwater wetland  | points = 4   |                           |
| Seasonal ponding: 1 ft - < 2 ft   | points = 4   |                           |
| Seasonal ponding: 6 in - < 1 ft   | points = 2   | 4                         |
| Seasonal ponding: < 6 in or wetland has   | nly saturated soils points = 0   |                           |
| Total for D 4   | Add the points in the boxes above  | 8                         |
| Rating of Site Potential If score is: 12-16 =   | H 6-11 = M 0-5 = L Record the rating on the  | he first page             |
|   | *  |                           |
| D.S.O. Does the landscape have the optenti  | al to support the hydrologic functions of the site?  |                           |
| D 5.1. Does the wetland receive stormwater dis  | The state of the s | 1                         |
| D 5.2. Is > 10% of the area within 150 ft of the                                      |  |                           |
|   | n of the wetland covered with intensive human land uses?   |                           |
| D 3.3. Is more than 23% of the contributing bas                                       | Yes = 1 No = 0   |                           |
| Total for D 5   | Add the points in the boxes above  | 7                         |
|   | H 1 or 2 = M 0 = L Record the rating on to   | he first nane             |
| Adding of Landscape Potential in Score is   |  | io jiiot page             |
|   |  | 14.1 (2001 <b>-11</b> 14  |
| D 6.0. Are the hydrologic functions provide   |  |                           |
| D 6.1. The wetland is in a landscape that has flo                                     |  |                           |
| ·   | conditions around the wetland being rated. Do not add points.  |                           |
| Choose the highest score if more than on  |  |                           |
|   | would otherwise flow down-gradient into areas where flooding has   |                           |
| damaged human or natural resources (e.  | g., houses or salmon redds), AND   |                           |
| Flooding occurs in sub-basin that is  | immediately down-gradient of wetland points = 2  | i i                       |
| Surface flooding problems are in a s  | _  |                           |
| -   |  |                           |
|   | wetland is so constrained by human or natural conditions that the  |                           |
| water stored by the wetland cannot reac   |  |                           |
| Explain why   | points = 0   |                           |
| There are no problems with flooding dow   | nstream of the wetland points = 0  |                           |
| D 6.2. Has the site has been identified as import                                     | ant for flood storage or flood conveyance in a regional flood control  |                           |
| plan?   | Yes = 2 No = 0   | C                         |
| Total for D 6   | Add the points in the boxes above  | 1                         |
| cating of Value If score is: 2-4 = H 1 = N  | 0 = L Record the rating on ti  | ha first nage             |



|   | pply to wetlands of all HGM classes.  te functions to provide important habitat   | (enly:1,<br>score per<br>box) |
|---|---|-------------------------------|
| H 1.0. Does the wetland have the potential  | to provide habitat for many species?  |                               |
| H 1.1. Structure of the plant community:  Check the Cowardin vegetation classes proceedings of the wetles  Aquatic bed  | resent and categories of emergent plants. Size threshold for each and if wetland is < 2.5 ac.   |                               |
| Emergent plants 0-12 in (0-30 cm) h   | igh are the highest layer and have > 30% cover<br>cm) high are the highest layer with >30% cover  |                               |
|   | igh are the highest layer with >30% cover   |                               |
| Scrub-shrub (areas where shrubs ha Forested (areas where trees have >3  | 30% cover) 3 checks: points = 2 2 checks: points = 1  | 3                             |
| S. I. | 1 check: points = 0<br>es = 1 No = 0  |                               |
| H 1.2. Is one of the vegetation types Aquatic Be  | er (es = 1 100 = 0  | 1                             |
| 10% of its area during the March<br>for Lake Fringe wetlands.<br>H 1.3.2. Does the wetland have an interm   | pen water (without emergent or shrub plants) over at least ¼ ac OR to early June OR in August to the end of September? Answer YES  Yes = 3 points & go to H 1.4 No = go to H 1.3.2  ittent or permanent, and unvegetated stream within its boundaries, ac or 10% of its area? Answer yes only if H 1.3.1 is No.  Yes = 3 No = 0 | 3                             |
| species can be combined to meet the size  | wetland that cover at least 10 ft <sup>2</sup> . Different patches of the same threshold. You do not have to name the species.  rygrass, purple loosestrife, Russian olive, Phragmites, Canadian marisk)  Scoring: > 9 species: points = 2  4-9 species: points = 1  < 4 species: points = 0                                    | 2                             |
| and unvegetated areas (open water or m  | r interspersion among types of plant structures (described in H 1.1), udflats) is high, moderate, low, or none.  I classes prepared for questions H 1.1 and map of open water from  | Figure_                       |
|   | ses or three classes and open water, the rating is always high.   |                               |
|   |   |                               |
| H 1.3. If you have four or more plant class   |   |                               |
| H 1.3. If you have four or more plant class   | ses or three classes and open water, the rating is always high.   |                               |

| etland name or number//  |     |
|--|-----|
| ELIZABLE OF INVINDES.  | 12  |
| H 1.6. Special habitat features  Check the habitat features that are present in the wetland. The number of checks is the number of points.  Loose rocks larger than 4 in OR large, downed, woody debris (> 4 in diameter) within the area of surface   |     |
| pending or in stream.  Cattails or bulrushes are present within the wetland.   |     |
| Emergent or shrub vegetation in areas that are permanently inundated/ponded.  Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 45 degree   |     |
| slope) OR signs of recent beaver activity Invasive species cover less than 20% in each stratum of vegetation (canopy, sub-canopy, shrubs,  | 4   |
| Total for H 1 Add the points in the boxes above  | 16  |
| tating of Site Potential If score is:15-18 = H7-14 = M0-6 = L Record the rating on the first page  |     |
| H 2.0. Does the landscape have the potential to support habitat functions of the site?   |     |
|  |     |
| H 2.1. Accessible habitat (only area of habitat abutting wetland). If total accessible habitat is:  **Calculate: /6 % undisturbed habitat 37 + [(% moderate and low intensity land uses)/2] /9 = 35 %  > 1/3 (33.3%) of 1 km Polygon  **Points = 3   |     |
| 20-33% of 1km Polygon points = 2 10-19% of 1km Polygon points = 1 <10% of 1km Polygon points = 0   | 3   |
| 120,001 21111111 01/6-11   |     |
| H 2.2. Undisturbed habitat in 1 km Polygon around wetland.  **Calculate: 5] % undisturbed habitat 3 9 + [(% moderate and low intensity land uses)/2] 20 = 7 / %  **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 Polygon points = 0  | 3   |
| Undisturbed habitat < 10% of Polygon points = 0  H 2.3. Land use intensity in 1 km Polygon:  |     |
| > 50% of Polygon is high intensity land use  Does not meet criterion above  points = (-2)  | 0   |
|  |     |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of  | 0   |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs  Yes = 3  | 0   |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs  Total for H 2  Add the points in the boxes above   | 0 6 |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs  Total for H 2  Add the points in the boxes above atting of Landscape Potential  If score is: 4-9 = H 1-3 = M < 1 = L Record the rating on the first page   | 6   |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs  Total for H 2  Add the points in the boxes above atting of Landscape Potential  If score is: 4-9 = H 1-3 = M < 1 = L Record the rating on the first page  H 3.0. Is the habitat provided by the site valuable to society?  | 6   |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs  Total for H 2  Add the points in the boxes above lating of Landscape Potential  If score is: 4-9 = H 1-3 = M < 1 = L Record the rating on the first page  H 3.0. Is the habitat provided by the site valuable to society?  | 6   |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs  Total for H 2  Add the points in the boxes above  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 the highest score that applies to the wetland being rated Site meets ANY of the following criteria:  | 6   |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs  Total for H 2  Add the points in the boxes above atting of Landscape Potential if score is:  4-9 = H  1-3 = M  <1 = L  Record the rating on the first page alued in laws, regulations, or policies? Choose the highest score that applies to the wetland being rated Site meets ANY of the following criteria:  — It has 3 or more priority habitats within 100 m (see Appendix B)   | 6   |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or eservoirs  Total for H 2  Add the points in the boxes above atting of Landscape Potential if score is:  4-9 = H  | 6   |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs  Total for H 2  Add the points in the boxes above lating of Landscape Potential  If score is: 4-9 = H 1-3 = M < 1 = L Record the rating on the first page  H 3.0. Is the habitat provided by the site valuable to society?  H 3.1. Does the site provide habitat for species that applies to the wetland being rated  Site meets ANY of the following criteria:  — It has 3 or more priority habitats within 100 m (see Appendix B)   | 6   |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs  Total for H 2  Add the points in the boxes above  Lating of Landscape Potential if score is: 4-9 = H 1-3 = M < 1 = L Record the rating on the first page  H 3.0. Is the habitat provided by the site valuable to society?  H 3.1. Does the site provide habitat for species that applies to the wetland being rated  Site meets ANY of the following criteria:  — It has 3 or more priority habitats within 100 m (see Appendix B)  — It provides habitat for Threatened or Endangered species (any plant or animal on state or federal lists)  — It is mapped as a location for an individual WDFW species  — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources  — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a | 6   |
| H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs  Total for H 2  Add the points in the boxes above  Lating of Landscape Potential if score is: 4-9 = H 1-3 = M < 1 = L Record the rating on the first page  H 3.0. Is the habitat provided by the site valuable to society?  H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose the highest score that applies to the wetland being rated Site meets ANY of the following criteria:  — It has 3 or more priority habitats within 100 m (see Appendix B)  — It provides habitat for Threatened or It is mapped as a location for an individual WDFW species  — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources   | 2   |

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

### CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate category. NOTE: A wetland may meet the criteria for more than one set of special characteristics. Record all those that apply. NOTE: All wetlands should also be characterized based on their functions.

| Wetland Type Check off any criteria that apply to the wetland  | Circle the category when the appropriate criteria are met.   | Category            |
|--|--|---------------------|
| SC 1.0. Vernal pools   |  |                     |
|  | oes it meet at least two of the following criteria?  |                     |
| - Its only source of water is rainfall or  | snowmelt from a small contributing basin and has no groundwater  |                     |
| input.   |  |                     |
|  | only in the spring; the summer vegetation is typically upland  | 5=34 T =            |
| annuals. If you find perennial, obliga   | e, wetland plants, the wetland is probably NOT a vernal pool.  |                     |
|  | Ift (30 cm)deep] and is underlain by an impermeable layer such as                                      | A CONTRACT          |
| basalt or clay.  |  |                     |
| Surface water is present for less tha  | n 120 days during the wet season.  |                     |
| ·  | Yes – Go to SC 1.1 No = Not a vernal pool  |                     |
| SC 1.1. Is the vernal pool relatively undisturbed  | in February and March?   |                     |
| Yes  | - Go to SC 1.2 No = Not a vernal pool with special characteristics                                     |                     |
| SC 1.2. Is the vernal pool in an area where ther wetlands, rivers, lakes etc.)?  | e are at least 3 separate aquatic resources within 0.5 mi (other  Yes = Category II No = Category III) | Cat. II<br>Cat. III |
|  |  |                     |
| SC 2.0. Alkali wetlands  |  |                     |
| Does the wetland meet one of the fo  |  |                     |
| — The wetland has a conductivity >   |  |                     |
|  | tween 2.0 and 3.0 mS, and more than 50% of the plant cover in the                                      |                     |
|  | " species (see Table 4 for list of plants found in alkali systems).                                    |                     |
| salt.  | fyour field visit, the central part of the area is covered with a layer of                             |                     |
| OR does the wetland unit meet two  |  |                     |
| — Salt encrustations around more the company of |  |                     |
| — More than ¾ of the plant cover co  |  |                     |
|  | have a high pH, but please note that some freshwater wetlands  | Cat. i              |
| may also have a high pH. Thus, ph  | alone is not a good indicator of alkali wetlands.  | Cat. 1              |
|  | Yes = Category No= Not an alkali wetland   |                     |
|  |  |                     |
| SC 3.0. Wetlands of High Conservation Va   | lue (WHCV)   |                     |
|  | ources updated their website to include the list of Wetlands of High                                   |                     |
| Conservation Value?  | Yes - Go to SC 3.2 No - Go to SC 3.3   |                     |
|  | base as a Wetland of High Conservation Value?  |                     |
|  | Yes = Category I No = Not a WHCV   | Cat. I              |
|  |  |                     |
| SC 3.3. Is the wetland in a Section/Township/R   | ange that contains a Natural Heritage wetland?   |                     |
| SC 3.3. Is the wetland in a Section/Township/R<br>http://www1.dnr.wa.gov/nhp/refdesk/  | datasearch/wnhpwetlands.pdf  |                     |
| http://www1.dnr.wa.gov/nhp/refdesk/  | datasearch/wnhpwetlands.pdf Yes - Contact WNHP/WDNR and go to SC 3.4 No = Not a WHCW                   |                     |
| http://www1.dnr.wa.gov/nhp/refdesk/  | datasearch/wnhpwetlands.pdf  |                     |



|   | The state of the s | The wifele is not the |
|---|--|-----------------------|
| d | SC 4.0 Bogs and Calcareous Fens  |                       |
|   | Does the wetland (or any part of the wetland unit) meet both the criteria for soils and vegetation in bogs or  |                       |
|   | calcareous fens? Use the key below to identify if the wetland is a bog or calcareous fen. If you answer yes  |                       |
|   | you will still need to rate the wetland based on its functions.  |                       |
|   | SC 4.1. Does an area within the wetland have organic soil horizons (i.e., layers of organic soil), either peats or   |                       |
|   | mucks, that compose 16 in or more of the first 32 in of the soil profile? See Appendix C for a field key to  |                       |
|   | identify organic soils. Yes – Go to SC 4.3 No –  |                       |
|   | SC 4.2. Does an area within the wetland 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 4.3 No = Is not a bog for rating  |                       |
|   | SC 4.3. Does an area within the wetland have more than 70% cover of mosses at ground level AND at least 30% of   |                       |
|   | the total plant cover consists of species in Table 5?  Yes = Category I bog No – Go to SC 4.4  |                       |
|   | 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 5 are present, the wetland is a bog.  |                       |
|   | SC 4.4. Is an area with peats or mucks forested (> 30% cover) with 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 5 provide more than 30% of the cover under the canopy?   | Cat. I                |
|   | Yes = Category I bog No - Go to SC 4.5   |                       |
|   |  |                       |
|   | SC 4.5. Do the species listed in Table 6 comprise at least 20% of the total plant cover within an area of peats and  |                       |
|   | mucks? Yes = Is a Calcareous Fen for purpose of rating No – Go to SC 4.6   |                       |
|   | SC 4.6. Do the species listed in Table 6 comprise at least 10% of the total plant cover in an area of peats and mucks,   |                       |
|   | AND one of the two following conditions is met:  | 0-4-1                 |
|   | Marl deposits [calcium carbonate (CaCO3) precipitate] occur on the soil surface or plant stems   | Cat. I                |
|   | — The pH of free water is ≥ 6.8 AND electrical conductivity is ≥ 200 uS/cm at multiple locations within the  |                       |
|   | wetland Yes = is a Category I calcareous fen No = is not a calcareous fen  |                       |
|   |  | NEW YORK WAS          |

| Does the wetland have an area of forest rooted within its boundary that meets at least one of the following three criteria? (Continue only if you have identified that a forested class is present in question H 1.1)  — The wetland is within the 100 year floodplain of a river or stream  — Aspen (Populus tremuloides) represents at least 20% of the total cover of woody species  — There is at least ¼ ac of trees (even in wetlands smaller than 2.5 ac) that are "mature" or "old-growth" according to the definitions for these priority habitats developed by WDFW (see definitions in question H3.1)  Yes – Go to SC 5.1 No = Not a forested wetland with special characteristies  15.1. Does the wetland have a forest canopy where more than 50% of the tree species (by cover) are slow yes = Category I No – Go to SC 5.2  15.2. Does the wetland have areas where aspen (Populus tremuloides) represents at least 20% of the total cover of woody species?  15.3. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Toble 7)?  15.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category II No – Go to SC 5.4  Cat. II  Cat. II   |  |         |
|--|--|---------|
| the following three criteria? (Continue only if you have identified that a forested class is present in question H 1.1)  — The wetland is within the 100 year floodplain of a river or stream  — Aspen (Populus tremuloides) represents at least 20% of the total cover of woody species  — There is at least ½ ac of trees (even in wetlands smaller than 2.5 ac) that are "mature" or "old-growth" according to the definitions for these priority habitats developed by WDFW (see definitions in question H3.1)  Yes – Go to SC 5.1 No = Not a forested wetland with special characteristics  15.1. Does the wetland have a forest canopy where more than 50% of the tree species (by cover) are slow Yes = Category I No – Go to SC 5.2  15.2. Does the wetland have areas where aspen (Populus tremuloides) represents at least 20% of the total cover of woody species?  15.3. Does the wetland have at least ½ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?  15.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category II No = Not a forested wetland with special characteristics  Cat. II  Cat. II  | SC 5.0. Forested Wetlands  |         |
| in question H 1.1)  — The wetland is within the 100 year floodplain of a river or stream  — Aspen (Populus tremuloides) represents at least 20% of the total cover of woody species  — There is at least ½ ac of trees (even in wetlands smaller than 2.5 ac) that are "mature" or "old-growth" according to the definitions for these priority habitats developed by WDFW (see definitions in question H3.1)  Yes – Go to SC 5.1 No = Not a forested wetland with special characteristies  5.1. Does the wetland have a forest canopy where more than 50% of the tree species (by cover) are slow yes = Category I No – Go to SC 5.2  5.2. Does the wetland have areas where aspen (Populus tremuloides) represents at least 20% of the total cover of woody species?  Yes = Category I No – Go to SC 5.3  5.3. Does the wetland have at least ½ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?  Yes = Category I No – Go to SC 5.4  5.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category II No – Go to SC 5.4  Cat. II  Cat. II  |  |         |
| <ul> <li>The wetland is within the 100 year floodplain of a river or stream</li> <li>Aspen (Populus tremuloides) represents at least 20% of the total cover of woody species</li> <li>There is at least ¼ ac of trees (even in wetlands smaller than 2.5 ac) that are "mature" or "old-growth" according to the definitions for these priority habitats developed by WDFW (see definitions in question H3. 1)         Yes – Go to SC 5.1 No = Not a forested wetland with special characteristies</li> <li>1. Does the wetland have a forest canopy growing native trees (see Table 7)?         Yes = Category   No – Go to SC 5.2</li> <li>2. Does the wetland have areas where as pen (Populus tremuloides) represents at least 20% of the total cover of woody species?         Yes = Category   No – Go to SC 5.3</li> <li>2. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?         Yes = Category   No – Go to SC 5.3</li> <li>2. S.A. Is the forested component of the wetland within the 100 year floodplain of a river or stream?         Yes = Category   No – Go to SC 5.4</li> <li>2. S.A. Is the forested component of the wetland within the 100 year floodplain of a river or stream?         Yes = Category   No – Go to SC 5.4</li> <li>2. Cat. II</li> </ul>  | the following three criteria? (Continue only if you have identified that a forested class is present   |         |
| — Aspen ( <i>Populus tremuloides</i> ) represents at least 20% of the total cover of woody species  — There is at least ¼ ac of trees (even in wetlands smaller than 2.5 ac) that are "mature" or "old-growth" according to the definitions for these priority habitats developed by WDFW (see definitions in question H3.1)  Yes – Go to SC 5.1 No = Not a forested wetland with special characteristies  25.1. Does the wetland have a forest canopy where more than 50% of the tree species (by cover) are slow yes = Category   No – Go to SC 5.2  25.2. Does the wetland have areas where aspen ( <i>Populus tremuloides</i> ) represents at least 20% of the total cover of woody species?  25.3. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?  Yes = Category   No – Go to SC 5.4  26.1. If Yes = Category   No – Go to SC 5.4  26.2. If Yes = Category   No – Go to SC 5.4  26.3. If Yes = Category   No – Go to SC 5.4  26.4. If Yes = Category   No – Go to SC 5.4  26.5.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category   No – Go to SC 5.4  Cat. II  | in question H 1.1)   |         |
| There is at least ¼ ac of trees (even in wetlands smaller than 2.5 ac) that are "mature" or "old-growth" according to the definitions for these priority habitats developed by WDFW (see definitions in question H3.1)  Yes – Go to SC 5.1 No = Not a forested wetland with special characteristics  25.1. Does the wetland have a forest canopy growing native trees (see Table 7)?  Yes = Category I No – Go to SC 5.2  Yes = Category I No – Go to SC 5.3  So.3. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?  Yes = Category I No – Go to SC 5.4  So.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category II No = Not a forested wetland with special characteristics  Cat. II  Cat. II  Cat. II  | — The wetland is within the 100 year floodplain of a river or stream   |         |
| There is at least ¼ ac of trees (even in wetlands smaller than 2.5 ac) that are "mature" or "old-growth" according to the definitions for these priority habitats developed by WDFW (see definitions in question H3.1)  Yes – Go to SC 5.1 No = Not a forested wetland with special characteristics  1.5.1. Does the wetland have a forest canopy growing native trees (see Table 7)?  1.5.2. Does the wetland have areas where aspen (Populus tremuloides) represents at least 20% of the total cover of woody species?  1.5.3. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?  1.5.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category II No = Not a forested wetland with special characteristics  Cat. II  Cat. II  Cat. II  Cat. II   | <ul> <li>Aspen (Populus tremuloides) represents at least 20% of the total cover of woody species</li> </ul>  |         |
| "old-growth" according to the definitions for these priority habitats developed by WDFW  (see definitions in question H3. 1)  Yes – Go to SC 5.1 No = Not a forested wetland with special characteristics  5.1. Does the wetland have a forest canopy where more than 50% of the tree species (by cover) are slow growing native trees (see Table 7)?  Yes = Category I No – Go to SC 5.2  7es = Category I No – Go to SC 5.3  7es = Category I No – Go to SC 5.3  7es = Category I No – Go to SC 5.3  7es = Category I No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  Yes = Category II No – Go to SC 5.4  Yes = Category II No – Go to SC 5.4  Yes = Category II No – Go to SC 5.4  Cat. II   |  |         |
| (see definitions in question H3.1)  Yes – Go to SC 5.1 No = Not a forested wetland with special characteristics  25.1. Does the wetland have a forest canopy where more than 50% of the tree species (by cover) are slow growing native trees (see Table 7)?  Yes = Category I No – Go to SC 5.2  Yes = Category I No – Go to SC 5.3  Yes = Category I No – Go to SC 5.3  25.3. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?  Yes = Category II No – Go to SC 5.4  S.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category II No = Not a forested wetland with special characteristics  Cat. II  Cat. II   |  |         |
| Yes – Go to SC 5.1 No = Not a forested wetland with special characteristics  5.1. Does the wetland have a forest canopy where more than 50% of the tree species (by cover) are slow growing native trees (see Table 7)?  5.2. Does the wetland have areas where aspen (Populus tremuloides) represents at least 20% of the total cover of woody species?  7es = Category I No – Go to SC 5.3  7es = Category I No – Go to SC 5.3  7es = Category I No – Go to SC 5.3  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  7es = Category II No – Go to SC 5.4  |  |         |
| growing native trees (see Table 7)?  Yes = Category I No Go to SC 5.2  5.2. Does the wetland have areas where aspen (Populus tremuloides) represents at least 20% of the total cover of woody species?  Yes = Category I No Go to SC 5.3  5.3. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?  Yes = Category II No Go to SC 5.4  5.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category II No Go to SC 5.4  Cat. II  Cat. II  Cat. II  |  |         |
| growing native trees (see Table 7)?  Yes = Category I No Go to SC 5.2  5.2. Does the wetland have areas where aspen (Populus tremuloides) represents at least 20% of the total cover of woody species?  Yes = Category I No Go to SC 5.3  5.3. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?  Yes = Category II No Go to SC 5.4  5.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category II No Go to SC 5.4  Cat. II  Cat. II  Cat. II  | SC 5.1. Does the wetland have a forest canopy where more than 50% of the tree species (by cover) are slow  | Cat. I  |
| 5.2. Does the wetland have areas where aspen (Populus tremuloides) represents at least 20% of the total cover of woody species?  Yes = Category   No - Go to SC 5.3  5.3. Does the wetland have at least ½ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?  Yes = Category   No - Go to SC 5.4  5.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category   No - Not a forested wetland with special characteristics  Cat.   Ca |  |         |
| 5.3. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (see Table 7)?  Yes = Category II No – Go to SC 5.4  Yes = Category II No = Not a forested wetland with special characteristics  Cat. II  Cat. II  | SC 5.2. Does the wetland have areas where aspen ( <i>Populus tremuloides</i> ) represents at least 20% of the total cover  | Cat. I  |
| cover) are fast growing species (see Table 7)?  Yes = Category II No - Go to SC 5.4  5.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category II No = Not a forested wetland with special characteristics  Cat. II   | of woody species? Yes = Category 1 No – Go to SC 5.3   |         |
| cover) are fast growing species (see Table 7)?  Yes = Category II No - Go to SC 5.4  5.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream?  Yes = Category II No = Not a forested wetland with special characteristics  Cat. II   | SC 5.3. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by   | Cat. II |
| Yes = Category II No = Not a forested wetland with special characteristics Cat. II   | cover) and change and the cover of the coveroe of the cover of the cover of the cover of the cover of the cov | 0000    |
| Yes = Category II No = Not a forested wetland with special characteristics   |  | Cat II  |
| ategory of wetland based on Special Characteristics  | Yes = Category II No = Not a forested wetland with special characteristics   | Cat. II |
|  | Category of wetland based on Special Characteristics   |         |
| hoose the highest rating if wetland falls into several categories  | Choose the highest rating if wetland falls into several categories   | NA      |
| you answered No for all types, enter "Not Applicable" on Summary Form  | If you answered No for all types, enter "Not Applicable" on Summary Form   |         |

# Appendix B: WDFW Priority Habitats in Eastern Washington

<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. <a href="http://wdfw.wa.gov/publications/00165/wdfw00165.pdf">http://wdfw.wa.gov/publications/00165/wdfw00165.pdf</a> or access the list from here: <a href="http://wdfw.wa.gov/conservation/phs/list/">http://wdfw.wa.gov/conservation/phs/list/</a>)

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

- of the land use between the wetland 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).
- Old-growth/Mature forests: Old-growth east of Cascade crest = Stands are highly variable in tree species composition and structural characteristics due to the influence of fire, climate, and soils. In general, stands will be >150 years of age, with 10 trees/ac (25 trees/ha) that are > 21 in (53 cm) dbh, and 1-3 snags/ac (2.5-7.5 snags/ha) that are > 12-14 in (30-35 cm) diameter. Downed logs may vary from abundant to absent. Canopies may be single or multi-layered. Evidence of human-caused alterations to the stand will be absent or so slight as to not affect the ecosystem's essential structures and functions. 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 and 80-160 years old east 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.
- **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.
- 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 > 12 in (30 cm)in eastern 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.
- Shrub-steppe: A nonforested vegetation type consisting of one or more layers of perennial bunchgrasses and a conspicuous but discontinuous layer of shrubs (see Eastside Steppe for sites with little or no shrub cover).
- Eastside Steppe: Nonforested vegetation type dominated by broadleaf herbaceous flora (i.e., forbs), perennial bunchgrasses, or a combination of both. Bluebunch wheatgrass (*Pseudoroegneria spicata*) is often the prevailing cover component along with Idaho fescue (*Festuca idahoensis*), Sandberg bluegrass (*Poa secunda*), rough fescue (*F. campestris*), or needlegrasses (*Achnatherum* spp.).
- Juniper Savannah: All juniper woodlands.

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

Wetland Rating System for Eastern WA: 2014 Update

| Wetland name or number_ | B |
|-------------------------|---|
| Welland hame of humber  |   |

Ratings

# **RATING SUMMARY – Eastern Washington**

| Name of wetland (or ID #                | f):     | Fouler                                       | Creek            |                     | _ Date of site | visit: Oct 22                                  |
|---|---------|--|------------------|---------------------|----------------|--|
| Rated by 50 Se                          | ~14     |  | Trained by       |                     |                | Date of training 9.17                          |
| HGM Class used for ratir                |         |  |                  |                     |                | _  |
| NOTE: Form is not of Source of base and |         |  |                  | equested ( <i>f</i> | figures can be | combined).                                     |
| OVERALL WETLAND                         |         |  |                  |                     | ns or spec     | cial characteristics)                          |
|   | ory I – | based or Total score Total score             | = 22-27          | NS                  |                | Score for each function based on three ratings |
| Catego                                  | ory III | - Total scor<br>- Total scor<br>- Total scor | e = 16-18        |                     |                | (order of ratings<br>is not<br>important)      |
| EUNCTION 1                              | - Imp   |  | Hydrologic       | Habitat             |                | 9 = H,H,H<br>8 = H,H,M<br>7 = H,H,L            |
|   |         | -  | e appropriate re |                     |                | 7 = H,M,M                                      |
| Site Potential                          | H (     | M) L H                                       | 1 M (V)          | H M (               | 2              | 6 = H,M,L                                      |
| Landscape Potential                     | H       | Ø L H  | + (M) L          | H) M                | L              | 6 = M,M,M                                      |
| Value                                   | H (     | D L E  | I (M) L          | ⊕ M                 | L TOTAL        | 5 = H,L,L                                      |
| Score Based on                          | 1       | ,  |                  | 7                   | 10             | 5 = M,M,L<br>4 = M.I.I                         |

2. Category based on SPECIAL CHARACTERISTICS of wetland

| CHARACTERISTIC                         | CATEGORY Circle the appropriate category |
|--|--|
| Vernal Pools                           | II III                                   |
| Alkali                                 | I  |
| Wetland of High Conservation Value     | I  |
| Bog and Calcareous Fens                | 1  |
| Old Growth or Mature Forest – slow gro | owing I                                  |
| Aspen Forest                           | I  |
| Old Growth or Mature Forest – fast gro | wing II                                  |
| Floodplain forest                      | II                                       |
| None of the above                      |  |

3 = L,L,L

### Maps and figures required to answer questions correctly for Eastern Washington **Depressional Wetlands**

| Mapol  |  | To answer questions: | Figure # |
|--|--|----------------------|----------|
| Cowardin plant classes and classes of em   |  | D 1.3, H 1.1, H 1.5  |          |
| Hydroperiods (including area of open wa  |  | D 1.4, H 1.2, H 1.3  |          |
| Location of outlet (can be added to map  | of hydroperiods)                       | D 1.1, D 4.1         |          |
| Boundary of area within 150 ft of the we   | tland (can be added to another figure) | D 2.2, D 5.2         |          |
| Map of the contributing basin  |  | D 5.3                |          |
| 1 km Polygon: Area that extends 1 km fro<br>polygons for accessible habitat and undi |  | H 2.1, H 2.2, H 2.3  |          |
| Screen capture of map of 303(d) listed w   | aters in basin (from Ecology website)  | D 3.1, D 3.2         |          |
| Screen capture of list of TMDLs for WRIA   | in which wetland is found (website)    | D 3.3                |          |

### Riverine Wetlands

| Map of:   | To answer questions: | Figure # |
|---|----------------------|----------|
| Cowardin plant classes and classes of emergents   | H 1.1, H 1.5         |          |
| Hydroperiods  | H 1.2, H 1.3         |          |
| Ponded depressions  | R 1.1                |          |
| Boundary of area within 150 ft of the wetland (can be added to another figure)  | R 2.4                |          |
| Map of the contributing basin   | R 2.2, R 2.3, R 5.2  |          |
| Plant cover of trees, shrubs, and herbaceous plants   | R 1.2, R 4.2         |          |
| Width of wetland vs. width of stream (can be added to another figure)   | R 4.1                |          |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat | H 2.1, H 2.2, H 2.3  |          |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)   | R 3.1                |          |
| Screen capture of list of TMDLs for WRIA in which wetland is found (website)  | R 3.2, R 3.3         |          |

### Lake Fringe Wetlands

| Map of   | To answer questions: Figure # |
|--|-------------------------------|
| Cowardin plant classes and classes of emergents  | L 1.1, L 4.1, H 1.1, H 1.5    |
| 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   | er figure)   L 2.2            |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - inclupolygons for accessible habitat and undisturbed habitat | uding H 2.1, H 2.2, H 2.3     |
| Screen capture of map of 303(d) listed waters in basin (from Ecology v   | vebsite) L 3.1, L 3.2         |
| Screen capture of list of TMDLs for WRIA in which wetland is found (w  | ebsite) L 3.3                 |

#### Slope Wetlands

| Map of:  |                                     | To answer questions: | Figure # |
|--|-------------------------------------|----------------------|----------|
| Cowardin plant classes and classes of emerg  | gents                               | H 1.1, H 1.5         |          |
| Hydroperiods   |                                     | H 1.2, H 1.3         |          |
| Plant cover of dense trees, shrubs, and her  | rbaceous plants                     | S 1.3                |          |
| Plant cover of <b>dense</b> , <b>rigid</b> trees, shrubs, and (can be added to figure above) | d herbaceous plants                 | \$ 4.1               |          |
| Boundary of area within 150 ft of the wetlan   | nd (can be added to another figure) | S 2.1, S 5.1         |          |
| 1 km Polygon: Area that extends 1 km from polygons for accessible habitat and undistur       | <del>-</del>                        | H 2.1, H 2.2, H 2.3  |          |
| Screen capture of map of 303(d) listed water   | ers in basin (from Ecology website) | S 3.1, S 3.2         |          |
| Screen capture of list of TMDLs for WRIA in  |                                     | S 3.3                |          |

### **HGM Classification of Wetland in Eastern Washington**

For questions 1-4, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-4 apply, and go to Question 5.

|    | and the control of th | 。我们就是一个时间,我们就是一个时间的时候,我们还是不知识,你是一个时间,我们就是一个时间,我们就是一个时间,我们就是一个时间,我们就是一个时间,我们就是一个时  |
|----|--|---|
| 1. | The vegetated part of the wetl of permanent open water (wit  | f the following criteria?<br>and is on the water side of the Ordinary High Water Mark of a body<br>hout any plants on the surface) that is at least 20 ac (8 ha) in size<br>r area is deeper than 10 ft (3 m) |
| _  | NO - go to 2   | YES - The wetland class is Lake Fringe (Lacustrine Fringe)  |
| 2. |  | vetland in one direction (unidirectional) and usually comes from as sheetflow, or in a swale without distinct banks;  |
|    |  | YES – The wetland class is <b>Slope</b> nd in these type of wetlands except occasionally in very small and mmocks (depressions are usually <3 ft diameter and less than 1 foot                                |
| 3. | Does the entire wetland unit <b>mee</b> The unit is in a valley, or strea stream or river; The overbank flooding occurs  | m channel, where it gets inundated by overbank flooding from that   |
|    | NO - go to 4<br>NOTE: The Riverine wetland can<br>flooding.  | YES – The wetland class is <b>Riverine</b> contain depressions that are filled with water when the river is not   |
| 4. |  | ographic depression in which water ponds, or is saturated to the ear. This means that any outlet, if present, is higher than the interior   |
|    | NO – go to 5   | YES - The wetland class is Depressional   |
| 5. |  | ficult to classify and probably contains several different HGM base of a slope may grade into a riverine floodplain, or a small   |

5. 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 1-4 APPLY TO DIFFERENT AREAS IN THE WETLAND 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.

|         |      |    |         | 77 |
|---------|------|----|---------|----|
| Wetland | name | or | number_ |    |

**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 wetland unit; classify the wetland using the class that represents more than 90% of the total area.

| HGM classes within the | wetland unit being rated                     | HGM Class to use in rating |
|------------------------|--|----------------------------|
| Slope +                | Riverine                                     | Riverine                   |
| Slope + D              | epressional                                  | Depressional               |
| Slope + I              | ake Fringe                                   | Lake Fringe                |
|                        | he riverine portion is within of depression) | Depressional               |
| Depressiona            | + Lake Fringe                                | Depressional               |
| Riverine +             | Lake Fringe                                  | Riverine                   |

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.

| er i samen er en  | ESSIGNAL WET ANDS  |                         | Points -     |
|---|--|-------------------------|--------------|
| Water Quality Functions - Indicators t  | hat the site functions to improve water o  | quality                 |              |
|   | And the second s |                         | And the      |
| D 1.0. Does the site have the potential to in   | prove water quality?   |                         |              |
| D 1,1. Characteristics of surface water outflows  | from the wetland:  |                         |              |
| Wetland has no surface water outlet   |  | points = 5              |              |
| Wetland has an intermittently flowing ou  | tlet   | points = 3              |              |
| Wetland has a highly constricted perman   |  | points = 3              | 5            |
| Wetland has a permanently flowing, unco   |  | points = 1              |              |
|   | ver) is true clay or true organic (use NRCS definit  | ions of soils)          |              |
|   |  | YES = 3 NO = 0          | 0            |
| D 1.3. Characteristics of persistent vegetation (E  | mergent, Scrub-shrub, and/or Forested Coward   | in classes)             |              |
| Wetland has persistent, ungrazed, vegeta  | tion for > 2/3 of area   | (points = 5)            |              |
| Wetland has persistent, ungrazed, vegeta  | tion from 1/3 to 2/3 of area   | points = 3              |              |
| Wetland has persistent, ungrazed vegeta   | tion from $\frac{1}{10}$ to $< \frac{1}{3}$ of area  | points = 1              | 5            |
| Wetland has persistent, ungrazed vegeta   | tion < 1/10 of area  | points = 0              |              |
| D 1.4. Characteristics of seasonal ponding or inc   |  |                         |              |
|   | every year. Do not count the area that is permo  | nently ponded.          |              |
| Area seasonally ponded is > ½ total area  |  | points = 3              |              |
| Area seasonally ponded is ¼ - ½ total a   |  | points = 1              |              |
| Area seasonally ponded is < 1/4 total area  |  | points = 0              | 00           |
|   |  |                         |              |
| Total for D 1   |  | nts in the boxes above  | 10           |
| Rating of Site Potential If score is: 12-16 = H   | 6-11 = M 0-5=L   | Record the rating on th | e first page |
| ال 2.0. Does the landscape have the potenti   | al to support the water quality function of t  | he site?                |              |
| D 2.1. Does the wetland receive stormwater dis  | charges?   | Yes = 1 No = 0          | )            |
| D 2.2. Is > 10% of the area within 150 ft of the  | vetland in land uses that generate pollutants?   | Yes = 1 No = 0          |              |
| D 2.3. Are there septic systems within 250 ft of  |  | Yes = 1 (No = 0         | 0            |
|   | ing into the wetland that are not listed in quest  | cions                   |              |
| D 2.1- D 2.3? Source  |  | Yes = 1 No = 0          | 0            |
| Total for D 2   | Add the poi  | nts in the boxes above  | 7            |
| Rating of Landscape Potential If score is: 3 c  |  | Record the rating on th | e first page |
|   |  |                         |              |
| D 3.0. Is the water quality improvement pro   |  |                         |              |
| D 3.1. Does the wetland discharge directly (i.e.,   | within 1 mi) to a stream, river, or lake that is on  | the 303(d) list?        |              |
|   |  | Yes = 1 No = 0          | 0            |
| D 3.2. Is the wetland in a basin or sub-basin who   | re water quality is an issue in some aquatic res   | ource [303(d) list,     |              |
| eutrophic lakes, problems with nuisance   |  | Yes = 1 No = 0          | 1            |
| D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES |  |                         |              |
|   |  |                         | 0            |
| if there is a TMDL for the drainage or bas  | in in which the wetiana is Jouna)?   | Yes = 2 No = 0          |              |
| I m . 16 mm   |  |                         | i i          |
| Total for D 3   | Add the poil   | nts in the boxes above  | 1            |

|   | The state of the s | Poletic<br>Galv I score |
|---|--|-------------------------|
| Hydrologic Functions - Indicators that                                  |  |                         |
| D 4.0. Does the site have the potential to n                            | duce flooding and erosion?   |                         |
| D 4.1. Characteristics of surface water outflows                        |  |                         |
| Wetland has no surface water outlet                                     | points = 8   |                         |
| Wetland has an intermittently flowing ou                                | tlet points = 4  | )                       |
| Wetland has a highly constricted perman                                 |  |                         |
| Wetland has a permanently flowing unco                                  | nstricted surface outlet points = 0  | 4                       |
|   | owing treat wetland as "intermittently flowing")   |                         |
| D 4.2. Depth of storage during wet periods: Esti                        | mate the height of ponding above the bottom of the outlet. For   |                         |
| wetlands with no outlet, measure from t                                 | e surface of permanent water or deepest part (if dry).   |                         |
| Seasonal ponding: > 3 ft above the lower                                | t point in wetland or the surface of permanent ponding points = 8  |                         |
|   | owest point in wetland or the surface of permanent pondingpoints = 6 points = 4  |                         |
| The wetland is a headwater wetland                                      | points = 4 points = 4  |                         |
| Seasonal ponding: 1 ft - < 2 ft   | points = 2   |                         |
| Seasonal ponding: 6 in - < 1 ft Seasonal ponding: < 6 in or wetland has |  | 0                       |
| Total for D 4   | Add the points in the boxes above  | 4                       |
|   |  |                         |
| Rating of Site Potential If score is: 12-16 =                           | H6-11 = M0-5 = L Record the rating on th   | ie jirst page           |
|   |  |                         |
| D 5.0. Does the landscape have the potenti                              | al to support the hydrologic functions of the site?  |                         |
| D 5.1. Does the wetland receive stormwater dis                          |  | 1                       |
| D 5.2. Is > 10% of the area within 150 ft of the                        | wetland in a land use that generates runoff? Yes = 1 No = 0  | 1                       |
| D 5.3. Is more than 25% of the contributing bas                         | in of the wetland covered with intensive human land uses?  |                         |
|   | Yes = 1 No = 0   | ) 0                     |
| Total for D 5   | Add the points in the boxes above  | 2                       |
| Rating of Landscape Potential If score is: 3                            | H 1 or 2 = M 0 = L Record the rating on the  | ne first page           |
|   |  |                         |
|   |  |                         |
| D 6.0. Are the hydrologic functions provide                             |  |                         |
| D 6.1. The wetland is in a landscape that has flo                       |  |                         |
|   | conditions around the wetland being rated. Do not add points.  |                         |
| Choose the highest score if more than on                                |  |                         |
|   | would otherwise flow down-gradient into areas where flooding has   |                         |
| damaged human or natural resources (e.                                  |  |                         |
|   | immediately down-gradient of wetland points = 2  |                         |
| Surface flooding problems are in a                                      | sub-basin farther down-gradient points = 1   | )                       |
| The existing or potential outflow from th                               | e wetland is so constrained by human or natural conditions that the  |                         |
| water stored by the wetland cannot read                                 |  |                         |
| Explain why   | points = 0   | )                       |
| There are no problems with flooding dov                                 |  | ľ                       |
|   | ant for flood storage or flood conveyance in a regional flood control  |                         |
| plan?   | Yes = 2 No = 0   | ) (                     |
| Total for D 6   | Add the points in the boxes above  | 1                       |
|   |  |                         |
| Rating of Value If score is: 2-4 = H 1 = N                              | N0 = L Record the rating on th   | ne first page           |

| Prese questions ag  | ply to wetlands of all HGM classes.   | (only 1 |
|---|---|---------|
| HABITAT FUNCTIONS - Indicators that sit   | e functions to provide important habitat  |         |
| H 1.0. Does the wetland have the potential  | o provide habitat for many species?   |         |
| category is >= 1/4 ac or >= 10% of the wetlarAquatic bedEmergent plants 0-12 in (0-30 cm) hig             | h are the highest layer and have > 30% cover  |         |
| Emergent plants >12-40 in (>30-100 c Emergent plants > 40 in (> 100 cm) hig                               |   |         |
| Forested (areas where trees have >30  |   |         |
| H 1.2. Is one of the vegetation types Aquatic Bed   | ? Yes = 1 No = 0  | 0       |
| 10% of its area during the March 1  for Lake Fringe wetlands.  H 1.3.2. Does the wetland have an intermit | ten water (without emergent or shrub plants) over at least ½ ac OR to early June OR in August to the end of September? Answer VES  Yes = 3 points & go to H 1.4 No = go to H 1.3.2 Itent or permanent, and unvegetated stream within its boundaries, ac or 10% of its area? Answer yes only if H 1.3.1 is No.  Yes = 3 No = 0 |         |
| species can be combined to meet the size to   | vetland that cover at least 10 ft <sup>2</sup> . Different patches of the same hreshold. You do not have to name the species. ygrass, purple loosestrife, Russian olive, Phragmites, Canadian arisk)  Scoring: > 9 species: points = 2  4-9 species: points = 1  < 4 species: points = 0                                      | ı       |
| and unvegetated areas (open water or multiple) Use map of Cowardin and emergent plant                     | interspersion among types of plant structures (described in H 1.1), dflats) is high, moderate, low, or none. classes prepared for questions H 1.1 and map of open water from es or three classes and open water, the rating is always high.   | Figure  |
|   |   |         |
| None = 0 points  Low = 1  All three diagrams in this row are  High = 3 points                             | Moderate = 2 points   | ł       |
|   | Riparian braided channels with 2 classes  | *       |

| etland name or number   |  | I        |
|---|--|----------|
| H 1.6. Special habitat features                               |  |          |
| Check the habitat features that are present                   | in the wetland. The number of checks is the number of points.      |          |
| Loose rocks larger than 4 in OR large                         | downed, woody debris (> 4 in diameter) within the area of surface  |          |
| ponding or in stream.   |  |          |
| Captails or bulrushes are present within                      |  |          |
|   | m > 4 in) in the wetland or within 30 m (100 ft) of the edge.      |          |
|   | that are permanently inundated/ponded.                             |          |
|   | t might be used by beaver or muskrat for denning (> 45 degree      |          |
| slope) OR signs of recent beaver activi                       |  |          |
|   | n each stratum of vegetation (canopy, sub-canopy, shrubs,          | - 1      |
| herbaceous, moss/ground cover)                                |  |          |
| Total for H 1   | Add the points in the boxes above                                  | <u>~</u> |
| Rating of Site Potential If score is:15-18 = H                | 7-14 = M   |          |
| H 2.0. Does the landscape have the potential                  | to support habitat functions of the site?                          | Y        |
| H 2.1. Accessible habitat (only area of habitat abu           | tting wetland). If total accessible habitat is:                    |          |
|   | + [(% moderate and low intensity land uses)/2] = 35 %              |          |
| > 1/3 (33.3%) of 1 km Polygon                                 | points = 3)  |          |
| 20-33% of 1km Polygon   | points = 2   |          |
| 10-19% of 1km Polygon   | points = 1   |          |
| <10% of 1km Polygon   | points = 0   | 3        |
| H 2.2. Undisturbed habitat in 1 km Polygon around             |  |          |
| Coloulater - 19 undicturbed habitat 39                        | + [(% moderate and low intensity land uses)/2] = 71 %              |          |
| Undisturbed habitat > 50% of Polygon                          | points = 3   |          |
|   |  |          |
| Undisturbed habitat 10 - 50% and in 1-3 par                   | • •  |          |
| Undisturbed habitat 10 - 50% and > 3 patch                    | 1  | 9        |
| Undisturbed habitat < 10% of Polygon                          | points = 0   |          |
| H 2.3. Land use intensity in 1 km Polygon:                    |  |          |
| > 50% of Polygon is high intensity land use                   | points = (- 2)   | 0        |
| Does not meet criterion above                                 | points = 0   |          |
| H 2.4. The wetland is in an area where annual rain            | fall is less than 12 in, and its water regime is not influenced by |          |
|   | structures. Generally, this means outside boundaries of            | (        |
| reclamation areas, irrigation districts, or res               | servoirs Yes = No = 0  |          |
| Total for H 2   | Add the points in the boxes above                                  | 6        |
| tating of Landscape Potential If score is: 4-9 =              | H1-3 = M<1 = L Record the rating on the first page                 |          |
| H 3.0. Is the habitat provided by the site value              | able to society?   | 4 , 1    |
| H 3.1. Does the site provide habitat for species val          | lued in laws, regulations, or policies? Choose the highest score   |          |
| that applies to the wetland being rated                       |  |          |
| Site meets ANY of the following criteria:                     | points = 2   |          |
| <ul> <li>It has 3 or more priority habitats within</li> </ul> | 100 m (see Appendix B)   |          |
|   | ndangered species (any plant or animal on state or federal lists)  |          |
| - It is mapped as a location for an individ                   |  |          |
|   | lue as determined by the Department of Natural Resources           |          |
|   | t habitat site in a local or regional comprehensive plan, in a     |          |
| Shoreline Master Plan, or in a watershe                       | 1  |          |
| Site has 1 or 2 priority habitats within 100 n                | ·  |          |
| Site does not meet any of the criteria above                  | , ,,   | 2        |
|   | 0 = L Record the rating on the first page                          |          |
| ating of Value If score is: 2 = H 1 = M                       | _v = r vector the rating on the Just bage                          |          |
|   |  |          |
| Wetland Rating System for Eastern WA: 2014 U                  | Jodate 14  |          |

### CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate category. NOTE: A wetland may meet the criteria for more than one set of special characteristics. Record all those that apply. NOTE: All wetlands should also be characterized based on their functions.

| Wetland Type Check off any criteria that apply to the wetland. Circle the category when the approp                                   | e criterio are met:  |
|--|--|
| SC 1.0. Vernal pools   |  |
| Is the wetland less than 4000 ft <sup>2</sup> , and does it meet at least two of the follow  | criteria?  |
| Its only source of water is rainfall or snowmelt from a small contributing   | n and has no groundwater   |
| input.   |  |
| — Wetland plants are typically present only in the spring; the summer vege   | on is typically upland   |
| annuals. If you find perennial, obligate, wetland plants, the wetland is pro   | oly NOT a vernal pool.   |
| — The soil in the wetland is shallow [< 1 ft (30 cm)deep] and is underlain by basalt or clay.  |  |
| Surface water is present for less than 120 days during the wet season.   |  |
| Yes – Go to s  | No = Not a vernal pool   |
| SC 1.1. Is the vernal pool relatively undisturbed in February and March?   |  |
| Yes - Go to SC 1.2 No = Not a vernal po  | ith special characteristics  |
| SC 1.2. Is the vernal pool in an area where there are at least 3 separate aquatic reso wetlands, rivers, lakes etc.)?  Yes =         | es within 0.5 mi (other<br>egory II No = Category III Cat. III   |
| SC 2.0. Alkali wetlands  |  |
| Does the wetland meet one of the following criteria?   | 1  |
| The wetland has a conductivity > 3.0 mS/cm.  | 1  |
| The wetland has a conductivity between 2.0 and 3.0 mS, and more tha  | % of the plant cover in the  |
| wetland can be classified as "alkali" species (see Table 4 for list of plan  |  |
| — If the wetland is dry at the time of your field visit, the central part of the salt.   | ea is covered with a layer of  |
| OR does the wetland unit meet two of the following three sub-criteria?   |  |
| Salt encrustations around more than 75% of the edge of the wetland   | 1  |
| — More than ¾ of the plant cover consists of species listed on Table 4   |  |
| — A pH above 9.0. All alkali wetlands have a high pH, but please note tha  | me freshwater wetlands   |
| may also have a high pH. Thus, pH alone is not a good indicator of alka  |  |
| Yes = Categor  | o= Not an alkali wetland   |
|  |  |
| CC 2 O Westlands of High Concentration Value (ANUCA)   | A CONTROL OF THE CONTROL OF THE PROPERTY OF THE PROPERTY OF THE CONTROL OF THE CO |
| SC 3.0. Wetlands of High Conservation Value (WHCV) SC 3.1. Has the WA Department of Natural Resources updated their website to inclu | he list of Wetlands of High  |
|  | SC 3.2 No - Go to SC 3.3   |
| Conservation Value? Yes — G<br>SC 3.2. Is the wetland listed on the WDNR database as a Wetland of High Conservati                    |  |
|  | egory I No = Not a WHCV Cat.   |
| SC 3.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage  |  |
| http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf   | And the state of the second state of the secon |
| Yes - Contact WNHP/WDNR and go   | SC 3.4 No = Not a WHCV   |
| SC 3.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Con  |  |
|  | egory I No =Not a WHCV   |
| on their websiter   Yes =  | SECINA 1 MO - MORT & MALLER  |

| SC 4.0 Bogs and Calcareous Fens  |                           |
|--|---------------------------|
| Does the wetland (or any part of the wetland unit) meet both the criteria for soils and vegetation in bogs or  |                           |
| calcareous fens? Use the key below to identify if the wetland is a bog or calcareous fen. If you answer yes  | 1                         |
| you will still need to rate the wetland based on its functions.  | II.                       |
| SC 4.1. Does an area within the wetland have organic soil horizons (i.e., layers of organic soil), either peats or   |                           |
| mucks, that compose 16 in or more of the first 32 in of the soil profile? See Appendix C for a field key to  |                           |
| identify organic soils. Yes – Go to SC 4,3 No – Go to SC 4,2   |                           |
| SC 4.2. Does an area within the wetland have organic soils, either peats or mucks, that are less than 16 in deep over  | 1                         |
| bedrock or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake ac   | 1                         |
| pond? Yes – Go to SC 4.3 (No = Is not a bog for rating   |                           |
| SC 4.3. Does an area within the wetland have more than 70% cover of mosses at ground level AND at least 30% of   |                           |
| the total plant cover consists of species in Table 5? Yes = Category I bog No – Go to SC 4.4   |                           |
| 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  | i                         |
| and the plant species in Table 5 are present, the wetland is a bog.  | 1                         |
| SC 4.4. Is an area with peats or mucks forested > 30% cover) with subalpine fir, western red cedar, western  |                           |
| hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species  | C-4.1                     |
| (or combination of species) listed in Table 5 provide more than 30% of the cover under the canopy?   | Cat. I                    |
| Yes = Category I bog No - Go to SC 4.5   | 1                         |
| SC 4.5. Do the species listed in Table 6 comprise at least 20% of the total plant cover within an area of peats and  |                           |
| mucks? Yes = is a Calcareous Fen for purpose of rating No – Go to SC 4.6   |                           |
| SC 4.6. Do the species listed in Table 6 comprise at least 10% of the total plant cover in an area of peats and mucks,   | 1                         |
| AND one of the two following conditions is met:  |                           |
| — Marl deposits [calcium carbonate (CaCO <sub>3</sub> ) precipitate] occur on the soil surface or plant stems  | Cat. I                    |
| — The pH of free water is ≥ 6.8 AND electrical conductivity is ≥ 200 uS/cm at multiple locations within the  |                           |
| wetland  Yes = Is a Category I calcareous fen No = Is not a calcareous fen   | I                         |
| Wettand  | Lagraga, Transport        |
| TO STATE OF A STATE OF | THE RESIDENCE OF SHAPE OF |

| SC 5.0. Forested Wetlands                          |  |         |
|--|--|---------|
| Does the wetland have an area of f                 | rest rooted within its boundary that meets at least one of           |         |
| the following three criteria? (Contir              | ue only if you have identified that a forested class is present      |         |
| in question H 1.1)                                 |  |         |
| — The wetland is within the 100                    | year floodplain of a river or stream                                 |         |
| <ul> <li>Aspen (Populus tremuloides) re</li> </ul> | presents at least 20% of the total cover of woody species            |         |
|  | ven in wetlands smaller than 2.5 ac) that are "mature" or            |         |
|  | efinitions for these priority habitats developed by WDFW             |         |
| (see definitions in question H3.                   |  |         |
|  | SC 5.1 No = Not a forested wetland with special characteristics      |         |
| SC 5.1. Does the wetland have a forest canopy      | where more than 50% of the tree species (by cover) are slow          | Cat. I  |
| growing native trees (see Table 7)?                | Yes = Category   No – Go to SC 5.2                                   |         |
| SC 5.2. Does the wetland have areas where as       | pen (Populus tremuloides) represents at least 20% of the total cover | Cat. I  |
| of woody species?                                  | Yes = Category   No – Go to SC 5.3                                   |         |
|  | with a forest canopy where more than 50% of the tree species (by     | Cat. II |
| cover) are fast growing species (see Tal           |  |         |
|  | nd within the 100 year floodplain of a river or stream?              | Cat. II |
| Yes = Cat  | egory II No = Not a forested wetland with special characteristics    |         |
| Category of wetland based on Special Charac        | teristics  |         |
| Choose the highest rating if wetland falls into    |  | MA      |
| If you answered No for all types, enter "Not A     | pplicable" on Summary Form   |         |
|  |  |         |

# Appendix B: WDFW Priority Habitats in Eastern Washington

Priority habitats listed by WDFW (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. <a href="http://wdfw.wa.gov/publications/00165/wdfw00165.pdf">http://wdfw.wa.gov/publications/00165/wdfw00165.pdf</a> or access the list from here: <a href="http://wdfw.wa.gov/conservation/phs/list/">http://wdfw.wa.gov/conservation/phs/list/</a>)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland: NOTE: This question is independent of the land use between the wetland 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).
- Old-growth/Mature forests: Old-growth east of Cascade crest Stands are highly variable in tree species composition and structural characteristics due to the influence of fire, climate, and soils. In general, stands will be >150 years of age, with 10 trees/ac (25 trees/ha) that are > 21 in (53 cm) dbh, and 1-3 snags/ac (2.5-7.5 snags/ha) that are > 12-14 in (30-35 cm) diameter. Downed logs may vary from abundant to absent. Canopies may be single or multi-layered. Evidence of human-caused alterations to the stand will be absent or so slight as to not affect the ecosystem's essential structures and functions. 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 and 80-160 years old east 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.
- 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.
- 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 > 12 in (30 cm)in eastern 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.
- Shrub-steppe: A nonforested vegetation type consisting of one or more layers of perennial bunchgrasses and a conspicuous but discontinuous layer of shrubs (see Eastside Steppe for sites with little or no shrub cover).
- Eastside Steppe: Nonforested vegetation type dominated by broadleaf herbaceous flora (i.e., forbs), perennial bunchgrasses, or a combination of both. Bluebunch wheatgrass (*Pseudoroegneria spicata*) is often the prevailing cover component along with Idaho fescue (*Festuca idahoensis*), Sandberg bluegrass (*Poa secunda*), rough fescue (*F. campestris*), or needlegrasses (*Achnatherum* spp.).
- Juniper Savannah: All juniper woodlands.

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

| Wetland | name | or | number   |  |
|---------|------|----|----------|--|
| welland | Hame | UI | HUIHINGL |  |

# RATING SUMMARY – Eastern Washington

| Name of wetland (or ID #):/ Rated by                 | Trained by Ecology? No Date of training                              |
|--|--|
| HGM Class used for rating                            |  |
| NOTE: Form is not comple<br>Source of base aerial ph | te without the figures requested (figures can be combined).  oto/map |
| OVERALL WETLAND CAT                                  | EGORY (based on functions or special characteristics)                |

## 1. Category of wetland based on FUNCTIONS

| Category I –   | Total score = 22-27  |
|----------------|----------------------|
| Category II -  | Total score = 19-21  |
| Category III - | -Total score = 16-18 |
| Category IV    | - Total score = 9-15 |

| FUNCTION               | Improving Hydrologic Water Quality |    | 005-E3-003620 MINUSESSESSESSESSESSESSESSESSESSESSESSESSES |       | gic    | Habitat           |        |   |   |       |
|------------------------|------------------------------------|----|---|-------|--------|-------------------|--------|---|---|-------|
|                        |                                    |    | Circle  | the a | ppropi | ri <b>a</b> te ro | atings | 5 |   |       |
| Site Potential         | Н                                  | M) | L   | Н     | М      | 0                 | Н      | M | L |       |
| Landscape Potential    | H (                                | W  | L   | Н     | (M)    | L                 | 0      | М | L |       |
| Value                  | H (                                | W) | L   | Н     | M      | ) L (             | H      | M | L | TOTAL |
| Score Based on Ratings |                                    | 6  |   |       | 5      | _                 |        | 8 |   | 19    |

Score for each function based on three ratings (order of ratings is not important)

9 = H,H,H 8 = H,H,M 7 = H,H,L 7 = H,M,M 6 = H,M,L 6 = M,M,M 5 = H,L,L 5 = M,M,L 4 = M,L,L 3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

| L. Catcholy bases on a              |                  |   |
|-------------------------------------|------------------|---|
| CHARACTERI                          | SUC              | CATEGORY  Circle the appropriate category |
| Vernal Pools                        |                  | H III                                     |
| Alkali                              |                  | I   |
| <b>Wetland of High Conservation</b> | n Value          | I   |
| Bog and Calcareous Fens             |                  | I   |
| Old Growth or Mature Fores          | t – slow growing |   |
| Aspen Forest                        |                  | I   |
| Old Growth or Mature Fores          | t – fast growing | II  |
| Floodplain forest                   |                  | II  |
| None of the above                   |                  |   |
|                                     |                  |   |

| Wetland name or      | number | C |
|----------------------|--------|---|
| AA CHIMITE HEITIC OF |        |   |

### Maps and figures required to answer questions correctly for Eastern Washington Depressional Wetlands

| Máp di  | To answer questions: | Figure # |
|---|----------------------|----------|
| Cowardin plant classes and classes of emergents   | D 1.3, H 1.1, H 1.5  |          |
| Hydroperiods (including area of open water for H 1.3)   | D 1.4, H 1.2, H 1.3  |          |
| Location of outlet (can be added to map of hydroperiods)  | D 1.1, D 4.1         |          |
| Boundary of area within 150 ft of the wet and (can be added to another figure)  | D 2.2, D 5.2         |          |
| Map of the contributing basin   | D 5.3                |          |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisjurbed habitat | H 2.1, H 2.2, H 2.3  |          |
| 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 wetland is found (website)  | D 3.3                |          |

### Riverine Wetlands

| Map of  | To answer questions: Figure # |
|---|-------------------------------|
| Cowardin plant classes and classes of emergents   | H 1.1, H 1.5                  |
| Hydroperiods  | H 1.2, H 1.3                  |
| Ponded depressions  | R 1.1                         |
| Boundary of area within 150 ft of the wet and (can be added to another figure)  | R 2.4                         |
| Map of the contributing basin   | R 2.2, R 2.3, R 5.2           |
| Plant cover of trees, shrubs, and herbaceous plants   | R 1.2, R 4.2                  |
| Width of wetland vs. width of stream (can be added to another figure)   | R 4.1                         |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat | H 2.1, H 2.2, H 2.3           |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)   | R 3.1                         |
| Screen capture of list of TMDLs for WRIA in which wetland is found (website)  | R 3.2, R 3.3                  |

### Lake Fringe Wetlands

| Map of:   | To answer questions:       | Figure # |
|---|----------------------------|----------|
| Cowardin plant classes and classes of emergents   | L 1.1, L 4.1, H 1.1, H 1.5 |          |
| Plant cover of trees, shrubs, and herbaceous plants   | L 1.2                      |          |
| Boundary of area within 150 ft of the wetland (can be added to another figure)  | L 2.2                      |          |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat | H 2.1, H 2.2, H 2.3        |          |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)   | L 3.1, L 3.2               |          |
| Screen capture of list of TMDLs for WRIA in which wetland is found (website)  | L3.3                       |          |

### Slope Wetlands

| Mapolt  | To answer questions: | Figure # |
|---|----------------------|----------|
| Cowardin plant classes and classes of emergents   | H 1.1, H 1.5         |          |
| Hydroperiods  | H 1.2, H 1.3         |          |
| Plant cover of dense trees, shrubs, and herbaceous plants   | S 1.3                |          |
| Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to figure above)                                   | S 4.1                |          |
| 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 polygons for accessible habitat and undisturbed habitat | H 2.1, H 2.2, H 2.3  |          |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website)   | S 3.1, S 3.2         |          |
| Screen capture of list of TMDLs for WRIA in which wetland is found (website)  | S 3.3                |          |

### **HGM Classification of Wetland in Eastern Washington**

For questions 1-4, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-4 apply, and go to Question 5.

| 1. | of permanent open water (wit   | f the following criteria?<br>and is on the water side of the Ordinary High Water Mark of a body<br>hout any plants on the surface) that is at least 20 ac (8 ha) in size<br>area is deeper than 10 ft (3 m)   |
|----|--|---|
| 1  | NO - go to 2   | YES - The wetland class is Lake Fringe (Lacustrine Fringe)  |
| 2. | Does the entire wetland unit mee  The wetland is on a slope (slope)  |   |
|    |  | as sheetflow, or in a swale without distinct banks;   |
| <  | NO - go to 3  NOTE: Surface water does not poshallow depressions or behind hudeep).                              | YES – The wetland class is <b>Slope</b> nd in these type of wetlands except occasionally in very small and mmocks (depressions are usually <3 ft diameter and less than 1 foot  |
| 3. | Does the entire wetland unit mee The unit is in a valley, or strea stream or river; The overbank flooding occurs | m channel, where it gets inundated by overbank flooding from that   |
|    | NO - go to A<br>NOTE: The Riverine wetland can<br>flooding.  | YES – The wetland class is <b>Riverine</b> contain depressions that are filled with water when the river is not   |
| 4. | Is the entire wetland unit in a top surface, at some time during the y of the wetland.                           | ographic depression in which water ponds, or is saturated to the ear. This means that any outlet, if present, is higher than the interior   |
|    | NO – go to 5   | YES – The wetland class is <b>Depressional</b>  |
| 5. | classes. For example, seeps at the stream within a Depressional wet  | ficult to classify and probably contains several different HGM base of a slope may grade into a riverine floodplain, or a small land has a zone of flooding along its sides. GO BACK AND IDENTIFY GIMES DESCRIBED IN QUESTIONS 1-4 APPLY TO DIFFERENT |

AREAS IN THE WETLAND 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.

| (                      | > |
|------------------------|---|
| *** .3 3               |   |
| Wetland name or number |   |

**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 wetland unit; classify the wetland using the class that represents more than 90% of the total area.

| HGM classes within the | wetland unit being rated                    | HGM Class to use in rating |
|------------------------|---|----------------------------|
| Slope +                | Riverine                                    | Riverine                   |
| Slope + Do             | pressional                                  | Depressional               |
| Slope + L              | ake Fringe                                  | Lake Fringe                |
| •                      | e riverine portion is within of depression) | Depressional               |
| Depressional           | + Lake Fringe                               | Depressional               |
| Riverine +             | Lake Fringe                                 | Riverine                   |

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.

| D 4.0. Does the site have the potential to reduce flooding and erosion?  D 4.1. Characteristics of surface water outlows from the wetland: Wetland has no surface water outlet Wetland has a highly constricted permanently flowing outlet Wetland has a permanently flowing outlet Wetland has only be surface of permanent ponding points = 0 14.2 Depth of a foroage during wetlands the beta surface of permanent ponding points = 8 Seasonal ponding: 2 ft < 3 tt above the lowest point in wetland or the surface of permanent ponding points = 8 Seasonal ponding: 3 ft above the lowest point in wetland or the surface of permanent ponding points = 8 Seasonal ponding: 4 ft < 2 ft Seasonal ponding: 6 in < 1 ft Seasonal ponding: 7 ft seasonal ponding: 8 ft Seasonal ponding: 8 ft seasonal ponding: 8 ft Seasonal ponding: 9 ft Seasonal pon |   |  | Points                    |
|--|---|--|---------------------------|
| D4.1. Characteristics of surface water outflows from the wetland:  Wetland has no surface water outlet  Wetland has a pitch constricted permanently flowing outlet  Wetland has a permanently flowing unconstricted surface outlet  (if outlet is a dich and not permanently flowing treat wetland as "intermittently flowing")  20.2. Depth of storage during wet periods: Estimate the helpht of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water of deepest part (if day).  Seasonal ponding: 2 ft -< 3 ft above the lowest point in wetland or the surface of permanent ponding points = 6  The wetland is a headwater wetland  Seasonal ponding: 1 ft -< 2 ft  Seasonal ponding: 2 ft -< 2 in -1 ft  Seasonal ponding: 6 in or wetland has only saturated soils  Total for D 4  Add the points in the boxes above  Add the points in the boxes above  Add the points in the boxes above  D 5.1. Does the wetland receive stormwater discharges?  Yes = No = 0  D 5.2. is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?  D 5.3. Is more than 25% of the contributing bas nor the wetland covered with intensive human land uses?  Yes = 1 No = 0  D 6.0. Are the hydrologic functions provided by the site valuable to society?  D 6.1. The wetland is in a landscape that has flooding problems.  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. s., houses or salmon redds), AND  Flooding occurs in sub-bash that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained | Hydrologic Functions - Indicators that  |  | (only 1 score<br>per box) |
| Wetland has an intermittently flowing outlet Wetland has a highly constricted permanently flowing outlet Wetland has a highly constricted permanently flowing outlet Wetland has a permanently flowing unconstricted surface outlet (if outlet is diction and not permanently flowing to the wetland as "intermittently flowing")  0.4.2. Death of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or deepest part (if dry). Seasonal ponding: 3 ft. < 3 ft above the lowest point in wetland or the surface of permanent ponding Seasonal ponding: 3 ft. < 3 ft above the lowest point in wetland or the surface of permanent ponding points = 8 Seasonal ponding: 1 ft. < 2 ft Seasonal ponding: 1 ft. < 2 ft Seasonal ponding: 6 in or wetland has only saturated soils  Fotal for D 4  Add the points in the boxes above  Add the points in the boxes above  Add the points in the points in the first pag  0.5.0. Does the landscape have the potential to support the hydrologic functions of the site?  0.5.1. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?  0.5.2. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?  0.5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses?  10.6.0. Are the hydrologic functions provided they the site valuable to society?  0.6.1. The wetland is in a landscape that has flooding problems.  10.6.0. Are the hydrologic functions provided they the site valuable to society?  10.6.1. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e. s., houses or salmon redds), AND  10.6.0. Are the hydrologic functions provided the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  10.6.2. Has the heighest score if more than one condition is met.   | D 4.0. Does the site have the potential to r  | educe flooding and erosion?  |                           |
| Wetland has an intermittently flowing outlet Wetland has a highly constricted permanently flowing outlet Wetland has a permanently flowing unconstricted surface outlet (if outlet is a ditch and not permanently flowing treat wetland as "intermittently flowing")  D. 2. Depth of storage during wet periods: Estimate the helpsh of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or deepest part (if dry). Seasonal ponding: > 3 ft above the lowest point in wetland or the surface of permanent ponding points = 8 Seasonal ponding: > 3 ft above the lowest point in wetland or the surface of permanent ponding points = 8 Seasonal ponding: 1 ft - < 2 ft seasonal ponding: 6 in - < 1 ft Seasonal ponding: 6 in  | D 4.1. Characteristics of surface water outflow   | from the wetland:  |                           |
| Wetland has a highly constricted permanently flowing outlet Wetland has a permanently flowing unconstricted surface outlet (if outlet is a ditch and not permanently flowing the wetland as "intermittently flowing")  4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or deepest part (if dry).  Seasonal ponding: 2 ft - < 3 ft above the lowest point in wetland or the surface of permanent ponding points = 8  Seasonal ponding: 2 ft - < 3 ft above the lowest point in wetland or the surface of permanent ponding points = 6  The wetland is a headwater wetland  Seasonal ponding: 6 in - < 1 ft  Seasonal ponding: 7 ft - < 2 ft  Seasonal ponding: 8 ft - < 2 ft  Seasonal ponding: 9 ft  Seasonal ponding: 9 ft - < < ft> < ft - 1 ft  Seasonal ponding: 9 ft  Seasonal pondi | Wetland has no surface water outlet   |  |                           |
| Wetland has a permanently flowing unconstricted surface outlet  (if outlet is a ditch and not permanently flowing treat wetland as "intermittently flowing")  10.4.2 Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or deepest part (if dry).  Seasonal ponding: 2f + < 3 ft above the lowest point in wetland or the surface of permanent ponding points = 8  Seasonal ponding: 1f + < 3 ft above the lowest point in wetland or the surface of permanent ponding points = 6  The wetland is a headwater wetland  Seasonal ponding: 1f + < 2 ft  Seasonal ponding: 6 in - < 1 ft  Seasonal ponding: 6 in - < 1 ft  Seasonal ponding: 6 in - < 1 ft  Seasonal ponding: 7 ft - < 2 ft  Seasonal ponding: 1f - < 2 ft  Seasonal ponding:  |   |  | P                         |
| No substant and not permanently flowing treat webland as "intermittently flowing"     14.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For weblands with no outlet, measure from the surface of permanent water or deepest pant (if dry).   Seasonal ponding: 2 ft - 3 ft above the lowest point in wetland or the surface of permanent ponding points = 8     Seasonal ponding: 2 ft - 3 ft above the lowest point in wetland or the surface of permanent ponding points = 6     The wetland is a headwater wetland     Seasonal ponding: 1 ft - 2 ft     Seasonal ponding: 1 ft - 2 ft     Seasonal ponding: 6 in - 1 ft     Seasonal ponding: 6 in or wetland has only saturated soils     Soints = 4     Seasonal ponding: 6 in or wetland has only saturated soils     Soints = 4     Soints = 5     Soints = 6     Soints = 6     Soints = 6     Soints = 6     Soints = 7     Soints = 7     Soints = 7     Soints = 8     Soints = 8     Soints = 9     Soints =    | Wetland has a highly constricted permai   |  | Ш                         |
| wetlands with no outlet, measure from the surface of permanent water or deepest part (if dry).  Seasonal ponding: > 3 ft above the lowest point in wetland or the surface of permanent ponding points = 8 Seasonal ponding: 2 ft - < 3 ft above the lowest point in wetland or the surface of permanent ponding points = 6 The wetland is a headwater wetland Seasonal ponding: 1 ft - < 2 ft Seasonal ponding: 1 ft - < 2 ft Seasonal ponding: 3 ft - < 2 ft Seasonal ponding: 6 in - < 1 ft Seasonal ponding: 6 in - < 1 ft Seasonal ponding: 6 in - < 1 ft Seasonal ponding: 6 in or wetland has only saturated soils  Intal for D 4  Add the points in the boxes above  Add the points in the boxes above  Add the points in the boxes above  D 5.0. Does the landscape have the potential to support the hydrologic functions of the site?  D 5.1. Does the wetland receive stormwater discharges?  D 5.2. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?  D 5.3. Is more than 25% of the contributing bas in of the wetland covered with intensive human land uses?  D 6.0. Are the hydrologic functions provided by the site valuable to society?  D 6.1. The wetland is in a landscape that has flooding problems.  Choose the description that best matches conditions around the wetland 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), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control plan?  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control plan?  Total for D 6  Add the points in the boxes above   | (If outlet is a ditch and not permanently   | flowing treat wetland as "intermittently flowing")   | 7                         |
| Seasonal ponding: > 3 ft above the lowest point in wetland or the surface of permanent ponding points: = 8 Seasonal ponding: 2 ft - < 3 ft above the lowest point in wetland or the surface of permanent pondingpoints: 6 The wetland is a headwater wetland Seasonal ponding: 1 ft - < 2 ft Seasonal ponding: 6 in - < 1 ft Seasonal ponding: 6 in - < 1 ft Seasonal ponding: 6 in - vetland has only saturated soils  Points: 2  Points: 2  Points: 2  Points: 3  Add the points in the boxes above  Add the points in the boxes above  Add the points in the boxes above  Points: 3  Discription: 3  Discription: 3  Discription: 4  Discription: 4  Discription: 5  Discription: 5  Discription: 5  Discription: 6  Discription: 7  Discri | D 4.2. Depth of storage during wet periods: Est   | imate the height of ponding above the bottom of the outlet. For  |                           |
| Seasonal ponding: 2 ft -< 3 ft above the lowest point in wetland or the surface of permanent pondingpoints = 6 The wetland is a headwater wetland Seasonal ponding: 1 ft -< 2 ft Seasonal ponding: 6 in -< 1 ft Seasonal ponding: 6 in or wetland has only saturated soils  Total for D 4  Add the points in the boxes above  Pes I No = 0  D 5.0. Does the landscape have the potential to support the hydrologic functions of the site?  D 5.1. Does the wetland receive stormwater discharges?  D 5.2. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?  D 5.3. Is more than 25% of the contributing bas in of the wetland covered with intensive human land uses?  Yes = 1 No = 0  D 6.0. Are the hydrologic functions provided by the site valuable to society?  D 6.0. Are the hydrologic functions provided by the site valuable to society?  D 6.0. Are the hydrologic functions provided by the site valuable to society?  D 6.1. The wetland is in a landscape that has flooding problems.  Choose the description that best matches conditions around the wetland 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), AND  Flooding occurs in sub-basin that is mediately down-gradient of wetland  D 6.0. Are the hydrologic problems are in a sub-basin farther down-gradient of wetland  D 6.1. 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  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as | wetlands with no outlet, measure from t   | he surface of permanent water or deepest part (if dry).  |                           |
| The wetland is a headwater wetland Seasonal ponding: 1 ft - < 2 ft Seasonal ponding: 6 in - < 1 ft Points = 4 Points = 2  | Seasonal ponding: > 3 ft above the lowe   | st point in wetland or the surface of permanent ponding points = 8   |                           |
| Seasonal ponding: 1 ft - < 2 ft Seasonal ponding: 6 in - < 1 ft Seasonal ponding: 6 in - < 1 ft Seasonal ponding: 6 in or wetland has only saturated soils  Total for D 4  Add the points in the boxes above  Atting of Site Potential If score is: 12-16 = H6-11 = M0-5 = L .   |   |  |                           |
| Seasonal ponding: 6 in <1 ft Seasonal ponding: 6 in <1 ft Seasonal ponding: 6 in or wetland has only saturated soils    Color   Color   Color  | The memory of the state of the | The state of the s |                           |
| Seasonal ponding: < 6 in or wetland has only saturated soils  Add the points in the boxes above  Asting of Site Potential    D 5.0. Does the landscape have the potential to support the hydrologic functions of the site?  D 5.1. Does the wetland receive stormwater discharges?  D 5.2. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?  D 5.2. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?  D 5.3. Is more than 25% of the contributing bas no f the wetland covered with intensive human land uses?  Yes = 1 No = 0  D 6.0. Are the hydrologic functions provided by the site valuable to society?  D 6.1. The wetland is in a landscape that has flooding problems.  Choose the description that best matches conditions around the wetland 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), AND  Flooding occurs in sub-basin that is surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control yes = 2 No = 0  Total for D 6  Add the points in the boxes above /   |   |  |                           |
| Add the points in the boxes above Agating of Site Potential if score is: 12-16 = H   |   |  | C                         |
| Rating of Site Potential   If score is:12-16 = H6-11 = M0-5 = L  |   |  | 1-1                       |
| D 5.0. Does the landscape have the potential to support the hydrologic functions of the site?  D 5.1. Does the wetland receive stormwater discharges?  D 5.2. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?  Ves = 1 No = 0  D 5.3. Is more than 25% of the contributing bas in of the wetland covered with intensive human land uses?  Yes = 1 No = 0  D 6.3. Is more than 25% of the contributing bas in of the wetland covered with intensive human land uses?  Yes = 1 No = 0  D 6.0. And the points in the boxes above  D 6.0. Are the hydrologic functions provided by the site valuable to society?  D 6.1. The wetland is in a landscape that has flooding problems.  Choose the description that best matches conditions around the wetland 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), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control yes = 2 No = 0  Total for D 6  Add the points in the boxes above  |   |  | ne first nage             |
| D 5.1. Does the wetland receive stormwater discharges?  D 5.2. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?  D 5.3. Is more than 25% of the contributing bas in of the wetland covered with intensive human land uses?  Yes = 1 No = 0  D 5.3. Is more than 25% of the contributing bas in of the wetland covered with intensive human land uses?  Yes = 1 No = 0  Add the points in the boxes above  I Record the rating on the first pag  D 6.0. Are the hydrologic functions provided by the site valuable to society?  D 6.1. The wetland is in a landscape that has flooding problems.  Choose the description that best matches conditions around the wetland 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), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control yes = 2 No = 0  Add the points in the boxes above /   | Rating of Site Potential II Score Is: 12-10   |  | re jir se pagi            |
| D 5.2. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?  D 5.3. Is more than 25% of the contributing bas in of the wetland covered with intensive human land uses?  Yes = 1  | D 5.0. Does the landscape have the potent   |  |                           |
| D 5.3. Is more than 25% of the contributing bas in of the wetland covered with intensive human land uses?  Yes = 1 No = 0  Add the points in the boxes above  I 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 wetland is in a landscape that has flooding problems.  Choose the description that best matches conditions around the wetland 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), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control plan?  Total for D 6  Add the points in the boxes above   | D 5.1. Does the wetland receive stormwater di   | scharges? Yes = 1 No = 0   | 1                         |
| Total for D 5  Add the points in the boxes above    Add the points in the boxes above   1  | D 5.2. Is > 10% of the area within 150 ft of the  | wetland in a land use that generates runoff? Yes = 1 No = 0  | 0                         |
| D 6.0. Are the hydrologic functions provided by the site valuable to society?  D 6.1. The wetland is in a landscape that has flooding problems.  Choose the description that best matches conditions around the wetland being rated. Do not add points.  Choose the highest score if more than one condition is met.  The wetland captures surface water that damaged human or natural resources (e.g., houses or salmon redds), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control yes = 2 No = 0  Add the points in the boxes above   | D 5.3. Is more than 25% of the contributing ba  | sn of the wetland covered with intensive human land uses?  Yes = 1 No = 0  | 0                         |
| D 6.0. Are the hydrologic functions provided by the site valuable to society?  D 6.1. The wetland is in a landscape that has flooding problems.  Choose the description that best matches conditions around the wetland being rated. Do not add points.  Choose the highest score if more than one condition is met.  The wetland captures surface water that damaged human or natural resources (e. g., houses or salmon redds), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland points = 2  Surface flooding problems are in a sub-basin farther down-gradient 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  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control plan?  Total for D 6  Add the points in the boxes above  | Total for D 5   | Add the points in the boxes above  | 1                         |
| Choose the description that best matches conditions around the wetland 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), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  Defection of the store of the wetland points in the boxes above  Total for Defection that the store description is met.  Add the points in the boxes above   | Rating of Landscape Potential If score is:3   | HO = L Record the rating on t  | he first page             |
| Choose the description that best matches conditions around the wetland 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), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  Defection of the store of the wetland points in the boxes above  Total for Defection that the store description is met.  Add the points in the boxes above   | D. 6.0. Are the hydrologic functions provide  | by the site valuable to society?   |                           |
| Choose the description that best matches conditions around the wetland being rated. Do not add points.  Choose the highest score if more than one condition is met.  The wetland captures surface water that damaged human or natural resources (e.g., houses or salmon redds), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control plan?  Total for D 6  Add the points in the boxes above  | Charles and the second of the |  |                           |
| 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), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control plan?  Total for D 6  Add the points in the boxes above   |   |  |                           |
| The wetland captures surface water that damaged human or natural resources (e.g., houses or salmon redds), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control plan?  Total for D 6  Add the points in the boxes above   |   |  |                           |
| damaged human or natural resources (e.g., houses or salmon redds), AND  Flooding occurs in sub-basin that is immediately down-gradient of wetland  Surface flooding problems are in a sub-basin farther down-gradient  The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood.  Explain why  There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control yes = 2 No = 0  Total for D 6  Add the points in the boxes above  |   |  |                           |
| Surface flooding problems are in a sub-basin farther down-gradient  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   |   |  |                           |
| Surface flooding problems are in a sub-basin farther down-gradient  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   | Flooding occurs in sub-basin that is  | simmediately down-gradient of wetland points = 2   | ŀ                         |
| 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 has been identified as important for flood storage or flood conveyance in a regional flood control yes = 2 No = 0     Total for D 6   Add the points in the boxes above   1   |   |  | <b>b</b>                  |
| water stored by the wetland cannot reach areas that flood.    Explain why  |   |  |                           |
| There are no problems with flooding downstream of the wetland  D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control yes = 2 No = 0  Total for D 6  Add the points in the boxes above   |   |  |                           |
| D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control Yes = 2 No = 0  Total for D 6  Add the points in the boxes above  |   |  | /                         |
| plan?  Yes = 2 No = 0  Total for D 6  Add the points in the boxes above /  | There are no problems with flooding do  | wnstream of the wetland points = 0   |                           |
| Total for D 6 Add the points in the boxes above /  |   |  | c                         |
|  | Total for D 6   |  | 1                         |
|  | ating of Value   If score is:2-4 = H1 =   | V 0 = L Record the rating on t   | ha finet mar              |

| These questions apply to wetlands of all HGM classes.  HABITAT FUNCTIONS - Indicators that site functions to provide important habitat  | (only 1<br>score per<br>box) |
|---|------------------------------|
| H 1.0. Does the wetland have the potential to provide habitat for many species?   |                              |
| H 1.1. Structure of the plant community:  Check the Cowardin vegetation classes present and categories of emergent plants. Size threshold for each category is >= ¼ ac or >= 10% of the wetland if wetland is < 2.5 ac.  Aquatic bed  |                              |
| Emergent plants 0-12 in (0-30 cm) high are the highest layer and have > 30% cover  Emergent plants >12-40 in (>30-100 cm) high are the highest layer with >30% cover  |                              |
| Emergent plants > 40 in (> 100 cm) high are the highest layer with >30% cover  Scrub-shrub (areas where shrubs have >30% cover)  4 or more checks: points = 3   |                              |
| Forested (areas where trees have >30% cover)  2 checks: points = 2 2 checks: points = 0   | /                            |
| H 1.2. Is one of the vegetation types Aquatic Bed?  | 0                            |
| H 1.3. Surface water H 1.3.1. Does the wetland have areas of open water (without emergent or shrub plants) over at least ½ ac OR 10% of its area during the March for Lake Fringe wetlands.  H 1.3.2. Does the wetland have an intermittent or permanent, and unvegetated stream within its boundaries, or along one side, over at least ½ ac or 10% of its area? Answer yes only if H 1.3.1 is No.  Yes = 3 No = 0                   | 3                            |
| H 1.4. Richness of plant species  Count the number of plant species in the species can be combined to meet the size threshold. You do not have to name the species.  Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Russian olive, Phragmites, Canadian thistle, yellow-flag iris, and saltcedar (Tanarisk)  # of species  Scoring: > 9 species: points = 2  4-9 species: points = 1  < 4 species: points = 0 |                              |
| H 1.5. Interspersion of habitats  | Figure                       |
| Decide from the diagrams below whether interspersion among types of plant structures (described in H 1.1), and unvegetated areas (open water or mudflats) is high, moderate, low, or none.  Use map of Cowardin and emergent plant classes prepared for questions H 1.1 and map of open water from H 1.3. If you have four or more plant classes or three classes and open water, the rating is always high.                          |                              |
|   |                              |
| None = 0 points Low = 1 point Moderate = 2 points   |                              |
| All three diagrams in this row are High = 3 points  | \                            |
| Riparian braided channels with 2 classes  |                              |

| etland       | name or number  |      |
|--------------|---|------|
| H 1.6.       | . Special habitat features  |      |
| 1            | Check the habitat features that are present in the wetland. The number of checks is the number of points.                         | 1    |
|              | Loose rocks larger than 4 in OR large downed, woody debris (> 4 in diameter) within the area of surfa                             | ice  |
|              | ponding or in stream.   | 1    |
|              | Cattails or bulrushes are present within the wetland.   |      |
|              | Standing snags (diameter at the bottom > 4 in) in the wetland or within 30 m (100 ft) of the edge.                                | 1    |
|              | Emergent or shrub vegetation in areas that are permanently inundated/ponded.  |      |
|              | Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 45 degree                              | 2    |
|              | slope) OR signs of recent beaver activity   | 1    |
|              | Invasive species cover less than 20% in each stratum of vegetation (canopy, sub-canopy, shrubs,                                   |      |
|              | herbaceous, moss/ground cover)  |      |
| <b>Total</b> | for H 1 Add the points in the boxes above   | e 7  |
| ating        | of Site Potential if score is: 15-18 = H 7-14 = M 0-6 = L Record the rating on the first page                                     | e    |
| H 2.0        | ). Does the landscape have the potential to support habitat functions of the site?  |      |
| _            | . Accessible habitat (only area of habitat abutting wetland). If total accessible habitat is:                                     |      |
|              | Calculate: 36% undisturbed habitat 18 + [(% moderate and low intensity land uses)/2] 9 = 45                                       | ж    |
|              | > \frac{1}{3} (33.3\%) of 1 km Polygon points =   | D    |
|              | 75 (2000)   | 2    |
|              | 20 107 c.   | 1    |
|              | 10-19% of 1km Polygon points =  | _    |
|              | <10% of 1km Polygon points =  | 0    |
| H 2.2.       | . Undisturbed habitat in 1 km Polygon around wetland.   |      |
|              | Calculate: 50% undisturbed habitat $\frac{1}{100}$ + [(% moderate and low intensity land uses)/2] $\frac{2U}{U}$ = $\frac{2U}{U}$ | %    |
|              | 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 Polygon points =   | 0 3  |
| H 2 3        | Land use intensity in 1 km Polygon:   |      |
| 11 2.5.      | > 50% of Polygon is high intensity land use points = (-)  | 2)   |
|              | Does not meet criterion above points =  | S    |
| - 171        |   |      |
| H 2.4.       | . The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by                   | - 1  |
|              | irrigation practices, dams, or water control structures. Generally, this means outside boundaries of                              | 2) 0 |
|              | reclamation areas, irrigation districts, or reservoirs  Yes = No.=  |      |
|              | for H 2 Add the points in the boxes above   | re 6 |
| ating        | of Landscape Potential If score is: 4-9 = H 1-3 = M < 1 = L Record the rating on the first page                                   | ie   |
| 1 3.0        | ). Is the habitat provided by the site valuable to society?   |      |
|              | . Does the site provide habitat for species valued in laws, regulations, or policies? Choose 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 Appendix B)  |      |
|              |   |      |
|              | It provides habitat for Threatened or Endangered species (any plant or animal on state or federal lists                           |      |
|              | — It is mapped as a location for an individual WDFW species   |      |
|              | - It is a Wetland of High Conservation Value as determined by the Department of Natural Resources                                 |      |
|              |   | 1    |
|              | — 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   |      |
|              | -   |      |

| Wetland | name or | number |  |
|---------|---------|--------|--|

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

Please determine if the wetland meets the attributes described below and circle the appropriate category. NOTE: A wetland may meet the criteria for more than one set of special characteristics. Record all those that apply. NOTE: All wetlands should also be characterized based on their functions.

|  |   | //="""="""   建一次点 |
|--|---|-------------------|
| Wetland Type  Check off any criteria that apply to the wetland     | Circle the category when the appropriate criteria are met.  | randow            |
| SC 1.0. Vernal pools   |   |                   |
| is the wetland less than 4000 ft <sup>2</sup> and d                | des it meet at least <b>two</b> of the following criteria?  |                   |
|  | snowmelt from a small contributing basin and has no groundwater   |                   |
| input.   | and winds and a strain contains and a state of the state |                   |
|  | only in the spring; the summer vegetation is typically upland   |                   |
|  | te, wetland plants, the wetland is probably NOT a vernal pool.  |                   |
|  | ft (30 cm)deep] and is underlain by an impermeable layer such as  | 100               |
| basalt or clay.  | to (50 diri)scap) and is direction by an important and in the   |                   |
| Surface water is present for less that                             | 120 days during the wet season.   |                   |
| Surface water to present for least and                             | Yes – Go to SC (.1 No = Not a vernal pool   |                   |
| SC 1.1. Is the vernal pool relatively undisturbed                  |   | E '-1 3-          |
| Yes  | - Go to SC 1.2 No = Not a vernal pool with special characteristics  |                   |
|  |   |                   |
|  | are at least 3 separate aquatic resources within 0.5 mi (other  | Cat. II           |
| wetlands, rivers, lakes etc.)?                                     | Yes = Category II No = Category III   | Cat. III          |
|  |   |                   |
| SC 2.0. Alkali wetlands  |   |                   |
| Does the wetland meet one of the fo                                | lowing criteria?  |                   |
| - The wetland has a conductivity >                                 |   |                   |
|  | tween 2.0 and 3.0 mS, and more than 50% of the plant cover in the   |                   |
| wetland can be classified as "alkal                                | i" species (see Table 4 for list of plants found in alkali systems).  |                   |
|  | your field visit, the central part of the area is covered with a layer of   |                   |
| salt.  |   |                   |
| OR does the wetland unit meet two o                                | the following three sub-criteria?   |                   |
| — Salt encrustations around more th                                | an 75% of the edge of the wetland   |                   |
| More than ¾ of the plant cover co                                  |   |                   |
|  | s have a high pH, but please note that some freshwater wetlands   |                   |
| may also have a high pH. Thus, pH                                  | alone is not a good indicator of alkali wetlands.   | Cat. I            |
| -  | Yes = Category   No= Not an alkali wetland  |                   |
|  |   | and gardene es    |
|  | I ANHON   |                   |
| SC 3.0. Wetlands of High Conservation Va                           | was undeted their website to include the list of Watlands of Lish   |                   |
|  | ources updated their website to include the list of Wetlands of High<br>Yes – Go to SC 3.2 No – Go to SC 3.3  |                   |
| Conservation Value? SC 3.2. Is the wetland listed on the WDNR data |   |                   |
| 5C 5.2. IS the wedard listed on the WDNR data                      | Yes = Category   No = Not a WHCV  | Cat. I            |
| SC 3.3. Is the wetland in a Section/Township/Ra                    | — ·   |                   |
| http://www1.dnr.wa.gov/nhp/refdesk/                                |   |                   |
| HLLP.//WWWI.GHR.WG.EOV/HHIP/TCIGCSN/                               | Yes - Contact WNHP/WDNR and go to SC 3.4 No = Not a WHO   |                   |
| SC 3.4. Has WDNR identified the wetland within                     | the S/T/R as a Wetland of High Conservation Value and it is listed  |                   |
| on their website?  | Yes = Category I No =Not a WHCV   |                   |
| on their wedate.   |   |                   |

| SC 4.0 Bogs and Calcareous Fens                  |   |        |
|--|---|--------|
|  | and unit) meet both the criteria for soils and vegetation in bogs or      |        |
| calcareous fens? Use the key below to ide        | ntify if the wetland is a bog or calcareous fen. <b>If you answer yes</b> |        |
| you will still need to rate the wetland ba       | sed on its functions.   |        |
| SC 4.1. Does an area within the wetland have org | anic soil horizons (i.e., layers of organic soil), either peats or        |        |
| mucks, that compose 16 in or more of the         | first 32 in of the soil profile? See Appendix C for a field key to        |        |
| identify organic soils.                          | Yes - Go to SC 4.3 No - Go to SC 4.2                                      |        |
|  | anic soils, either peats or mucks, that are less than 16 in deep over     |        |
|  | as clay or volcanic ash, or that are floating on top of a lake or         |        |
| pond?  | Yes - Go to SC 4.3 No = Is not a bog for rating                           |        |
|  | re than 70% cover of mosses at ground level AND at least 30% of           |        |
| the total plant cover consists of species in     |   |        |
|  | nt of mosses in the understory, you may substitute that criterion         |        |
|  | eps into a hole dug at least 16 in deep. If the pH is less than 5.0       |        |
| and the plant species in Table 5 are prese       |   |        |
|  | 30% cover) with subalpine fir, western red cedar, western                 |        |
|  | Engelmann spruce, or western white pine, AND any of the species           |        |
|  | 5 provide more than 30% of the cover under the canopy?                    | Cat. I |
| (or combination of species) nated in real        | Yes = Category I bog No - Go to SC 4.5                                    | ,      |
| C 4 5 Do the species listed in Table 6 comprise  | at least 20% of the total plant cover within an area of peats and         |        |
|  | es = Is a Calcareous Fen for purpose of rating No – Go to SC 4.6          |        |
|  | at least 10% of the total plant cover in an area of peats and mucks,      |        |
| AND one of the two following conditions          |   |        |
| _  | O <sub>3</sub> ) precipitate] occur on the soil surface or plant stems    | Cat. i |
|  |   | CGL. I |
|  | trical conductivity is ≥ 200 uS/cm at multiple locations within the       |        |
| wetland  | Yes = Is a Category I calcareous fen No = Is not a calcareous fen         |        |

| SC 5.0. Forested Wetlands                          |  |         |
|--|--|---------|
|  | rest rooted within its boundary that meets at least one of                   |         |
| the following three criteria? (Continu             | e only if you have identified that a forested class is present               |         |
| in question H 1.1)                                 |  |         |
| — The wetland is within the 100 ye                 | ear floodplain of a river or stream  |         |
| 1  | resents at least 20% of the total cover of woody species                     |         |
| - There is at least 1/2 ac of trees (even          | en in wetlands smaller than 2.5 ac) that are "mature" or                     |         |
|  | efinitions for these priority habitats developed by WDFW                     |         |
| (see definitions in question H3.1)                 |  |         |
|  | C 5.1 No = Not a forested wetland with special characteristics               |         |
| SC 5.1. Does the wetland have a forest canopy      | here more than 50% of the tree species (by cover) are slow                   | Cat. I  |
| growing native trees (see Table 7)?                | Yes = Category   No - Go to SC 5.2   |         |
| SC 5.2. Does the wetland have areas where aspe     | en ( <i>Populus tremuloides</i> ) represents at least 20% of the total cover | Cat. I  |
| of woody species?                                  | Yes = Category I No - Go to SC 5.3   |         |
|  | th a forest canopy where more than 50% of the tree species (by               | Cat. II |
| cover) are fast growing species (see Table         |  |         |
|  | d within the 100 year floodplain of a river or stream?                       | Cat. II |
| Yes = Cate   | gory II No = Not a forested wetland with special characteristics             |         |
| Category of wetland based on Special Character     | eristics   |         |
| Choose the highest rating if wetland falls into se | everal categories  | NA      |
| If you answered No for all types, enter "Not Arr   | olieghto" on Summary Form  |         |

## Appendix B: WDFW Priority Habitats in Eastern Washington

<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. <a href="http://wdfw.wa.gov/publications/00165/wdfw00165.pdf">http://wdfw.wa.gov/publications/00165/wdfw00165.pdf</a> or access the list from here: <a href="http://wdfw.wa.gov/conservation/phs/list/">http://wdfw.wa.gov/conservation/phs/list/</a>)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland: **NOTE:** This question is independent of the land use between the wetland 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).
- Old-growth/Mature forests: Old-growth east of Cascade crest \_ Stands are highly variable in tree species composition and structural characteristics due to the influence of fire, climate, and soils. In general, stands will be >150 years of age, with 10 trees/ac (25 trees/ha) that are > 21 in (53 cm) dbh, and 1-3 snags/ac (2.5-7.5 snags/ha) that are > 12-14 in (30-35 cm) diameter. Downed logs may vary from abundant to absent. Canopies may be single or multi-layered. Evidence of human-caused alterations to the stand will be absent or so slight as to not affect the ecosystem's essential structures and functions. 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 and 80-160 years old east 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.
- **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.
- 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 > 12 in (30 cm)in eastern 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.
- Shrub-steppe: A nonforested vegetation type consisting of one or more layers of perennial bunchgrasses and a conspicuous but discontinuous layer of shrubs (see Eastside Steppe for sites with little or no shrub cover).
- Eastside Steppe: Nonforested vegetation type dominated by broadleaf herbaceous flora (i.e., forbs), perennial bunchgrasses, or a combination of both. Bluebunch wheatgrass (*Pseudoroegneria spicata*) is often the prevailing cover component along with Idaho fescue (*Festuca idahoensis*), Sandberg bluegrass (*Poa secunda*), rough fescue (*F. campestris*), or needlegrasses (*Achnatherum* spp.).
- Juniper Savannah: All juniper woodlands.

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

Wetland Rating System for Eastern WA: 2014 Update Effective January 1, 2015 Appendix B

