



Sewall Wetland Consulting, Inc.

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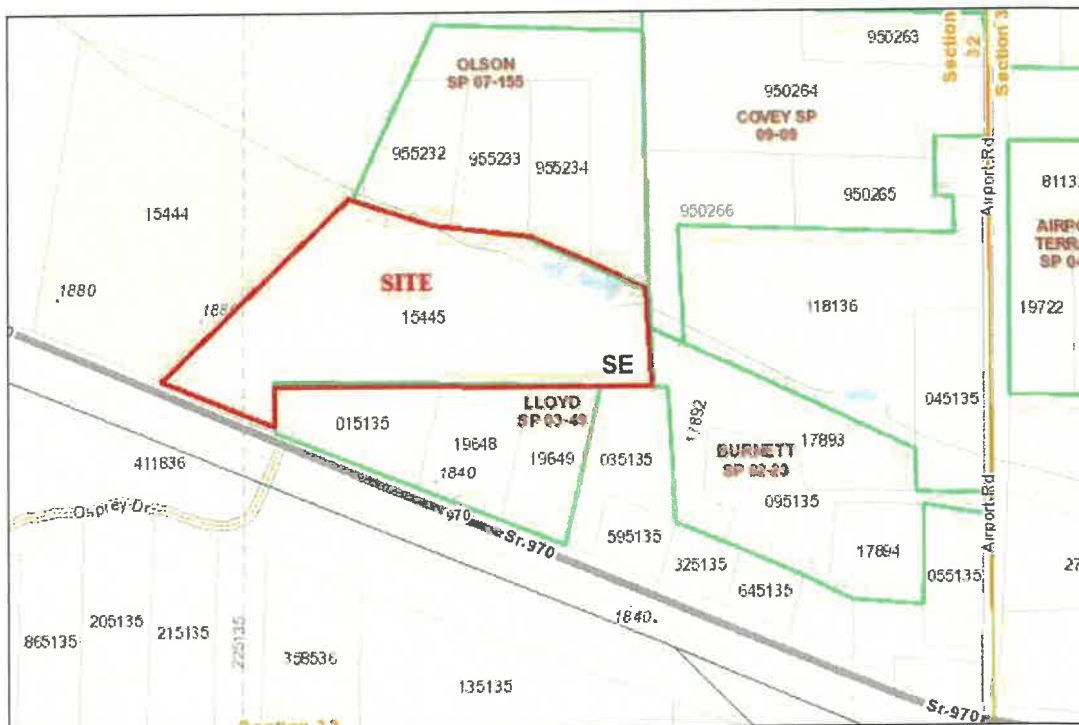
May 8, 2024

Josh Mitchell
WLC Holdings-Swiftwater Storage
3581 SR 970
Cle Elum, Washington 98922

RE: Critical Area Report – Parcel #15445
Kittitas County, Washington
SWC Job #20-150

Dear Josh,

This report is an addendum/update report to our October 12, 2020
Critical Areas Report for Parcel #15445 originally done for WLC Holdings.



Above: Vicinity Map of site

A. Wetland B revised Delineation based upon hydrology monitoring

At the time of the originally submitted report, Wetland B, identified as a Category III wetland was located on the south side of the site. The wetland was identified by the vegetation and soils but wetland hydrology was never confirmed as the delineation work was done in late summer.

Wetland B is an isolated depression that has a ditch connecting it to Wetland A to the north. The ditch appears to have been dug years ago to possibly drain this feature.

Over the last two years we have monitored the hydrology of this area in several test holes within the originally delineated "Wetland B" in the early growing season, which is the wettest time of the growing season for this area. We discovered that other than a small area on the south east corner of the site, the remainder had no evidence of wetland hydrology. As a result, we have modified the original delineation (see attached map) to accurately depict the area that actually meets all three wetland criteria. This results in a greatly reduced wetland in size. We have attached the original rating form for this wetland.

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 16 points with 5 points for habitat indicating a Category III wetland.

According to Kittitas County Municipal Code Chapter 17A.07.030, Category III wetlands have a buffer range of 75'-150' depending upon land use intensity. Assuming a moderate intensity land use (<1 unit per acre) for the site would result in a 110' buffer from the wetland edge. In addition, a 15' Building Setback line is required from the edge of the buffer.

Table 17A.07.030: Standard Buffer Widths

Category of Wetland	Land Use with Low Impact ¹	Land Use with Moderate Impact ²	Land Use with High Impact ³
I	125 ft	190 ft	250 ft
II	100 ft	150 ft	200 ft
III	75 ft	110 ft	150 ft
IV	25 ft	40 ft	50 ft

B. Interrupted Buffer Wetland A

In the originally submitted Critical Areas Report in 2020, we showed the buffer of Wetland A crossing the existing access road through the site as well as the gravel road which extended from the access road to the eastern side of the site. Since the time of the original submitted report, the County Code has changed and now includes a provision for “Interrupted Buffer- Kittitas County Code 17B.05.020G.4).

According to KCC 17B.05.020G.4 (Interrupted Buffer), when a buffer is bisected by a legally established private road, development on the landward side of the road may be allowed if it will not have any detrimental effects to the wetland as described below;

Interrupted buffer: When a wetland buffer contains an existing legally established public or private road, the Administrator may allow development on the landward side of the road provided that the development will not have a detrimental impact to the wetland. The applicant may be required to provide a wetland critical areas report to describe the potential impacts. In determining whether a critical areas report is necessary, the County shall consider the hydrologic, geologic, and/or biological habitat connection potential and the extent and permanence of the buffer interruption.

Given the location of the existing access road and the gravel road accessing portion of the site to the east, this area would meet the criteria of an interrupted buffer under this provision of Code. The areas south of the existing access road do not provide any major contributions to buffering the Wetland A as they are not heavily vegetated with large trees that contribute to the wetland, nor are they general drainage paths or habitat features within this buffer area. As a result, we have modified

the original map to depict the "interrupted buffer" stopping at the edge of the existing gravel roads on the site.

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 esewall@sewallwc.com.

Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetlands Ecologist PWS #212

*Attached: Site Survey with buffers
Data sheets
Rating Form & 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.

Kittitas County Municipal Code

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

Munsell Color. 1988. Munsell Soil Color Charts. Kollmorgen Instruments Corp., Baltimore, Maryland.

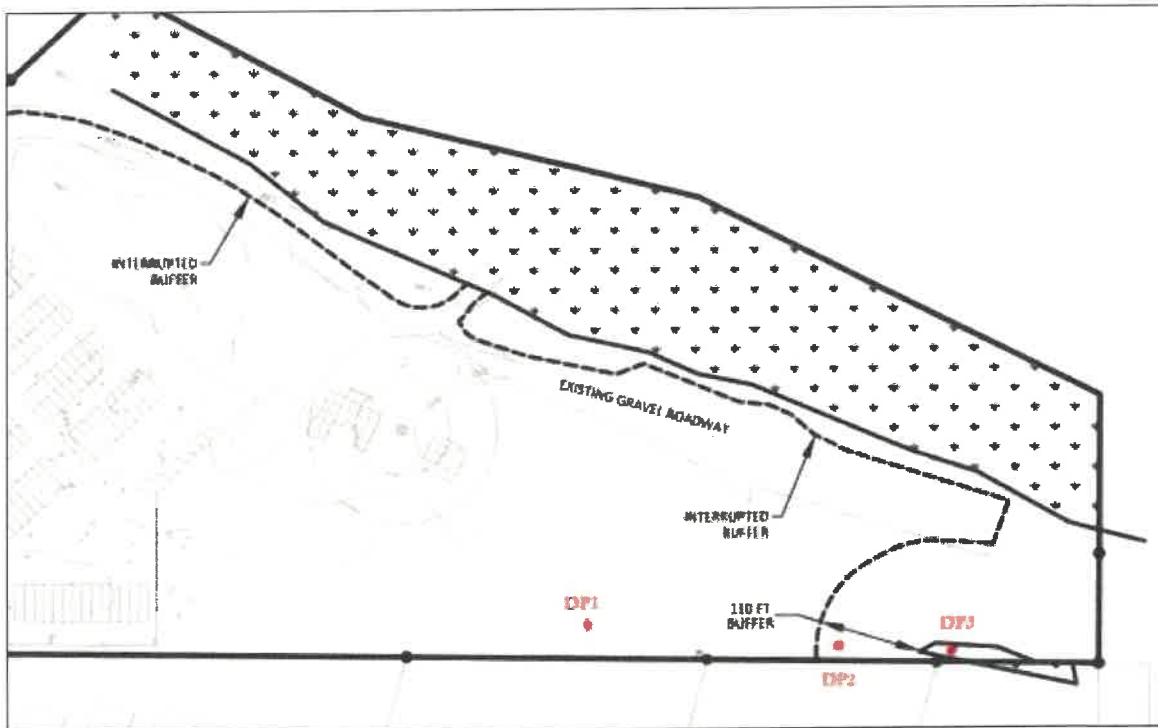
National Technical Committee for Hydric Soils. 1991. Hydric Soils of the United States. USDA Misc. Publ. No. 1491.

Sewall Wetland Consulting, Inc. 10-12-20 WLC Holdings Critical Areas Report.

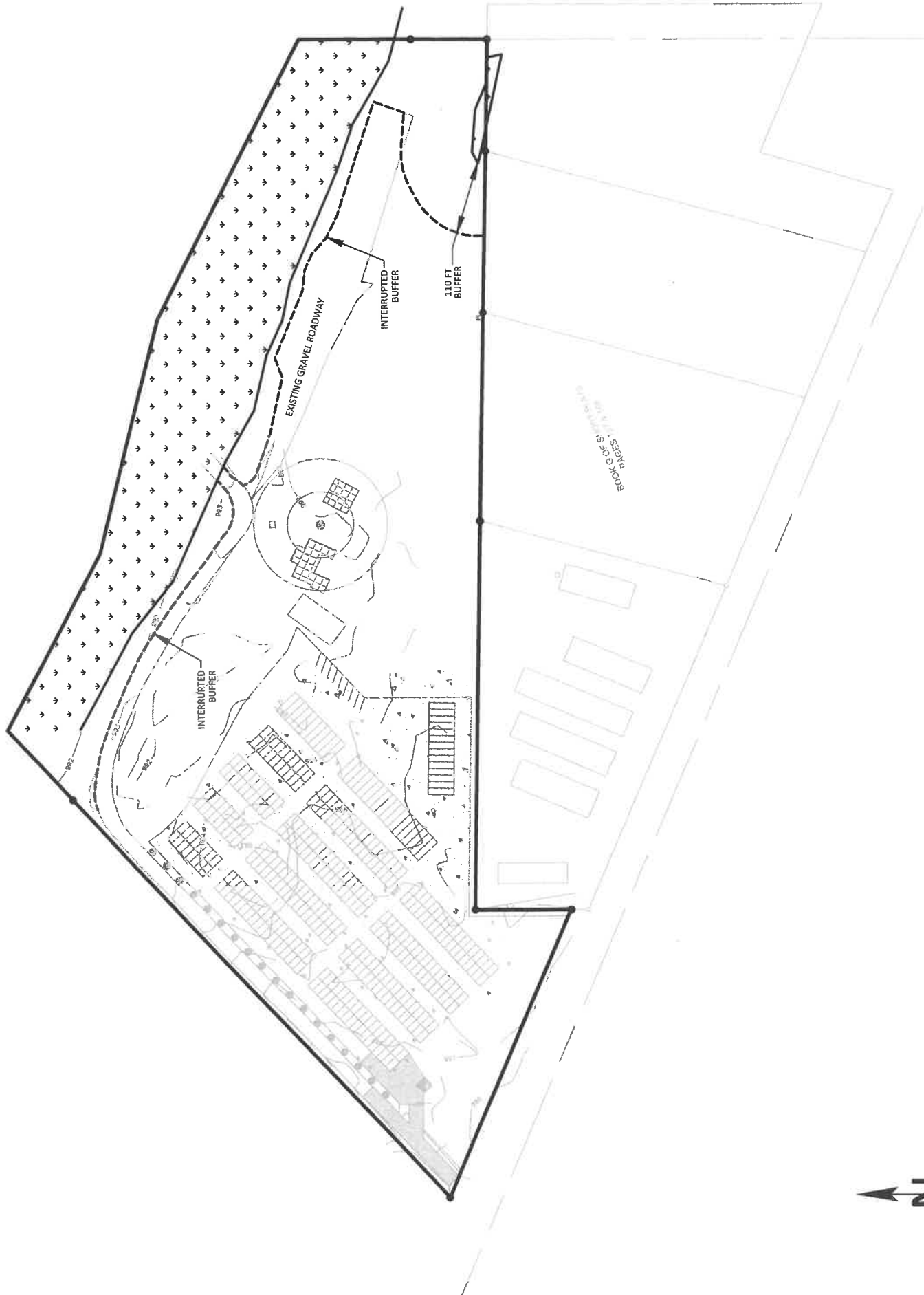
Reed, P., Jr. 1988. National List of Plant Species that Occur in Wetlands: Northwest (Region 9). 1988. U. S. Fish and Wildlife Service, Inland Freshwater Ecology Section, St. Petersburg, Florida.

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



Above: location of data points.



Sewall Wetland Consulting, Inc.

PO Box 880 - Fall City, Washington 98024 Phone: 253-859-0515

WETLAND EXHIBIT

STILLWATER STORAGE

KITTITAS COUNTY TAX PARCEL NO. 15445

WETLAND DETERMINATION DATA FORM – Arid West Region

South of 112
Flag A-24 wet B

Project/Site: Stillwater Storage City/County: K. M. T. as Sampling Date: 4-5-24
 Applicant/Owner: _____ State: WA Sampling Point: DPR 1
 Investigator(s): Ed Seidl Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>old ditch at east end may have dropped once</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
Herb Stratum (Plot size: _____)				Column Totals: _____ (A) _____ (B)
1. <u>Phalaris amabilis</u>	<u>80</u>	_____	<u>FACW</u>	Prevalence Index = B/A = _____
2. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:
3. _____	_____	_____	_____	<input checked="" type="checkbox"/> Dominance Test is >50%
4. _____	_____	_____	_____	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
5. _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Remarks: _____				

Sampling Point: D1#1

Sampling Point:

1-#1

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)

☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: _____
Depth (Inches): _____Hydric Soil Present? Yes ☒ No ☐

HYDROLOGY

Primary Indicators (minimum of one required; check all that apply)

- ___ Water Marks (B1) (Riverline)
- ___ Sediment Deposits (B2) (Riverline)
- ___ Drift Deposits (B3) (Riverline)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- No evidence of hydrology to depth of - 20"
Partly greeny sand

just south of old Flag
#24 wet B

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stillwater Storage City/County: K. T. Mills Sampling Date: 4-5-24
Applicant/Owner: _____ State: WA Sampling Point: DP#2
Investigator(s): Ed Scumli Section, Township, Range: _____
Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>old ditch at east end may have disrupted area</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)
4. _____	_____	_____	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. <u>Populus tremuloides</u>	<u>30</u>	_____	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Symphoricarpos albus</u>	<u>30</u>	_____	<u>FACW</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
Herb Stratum (Plot size: _____)				Column Totals: _____ (A) _____ (B)
1. <u>Phalaris amabilis</u>	<u>80</u>	_____	<u>FACW</u>	Prevalence Index = B/A = _____
2. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:
3. _____	_____	_____	_____	<input checked="" type="checkbox"/> Dominance Test is >50%
4. _____	_____	_____	_____	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
5. _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks: _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____

Sampling Point: DP#2

Sampling Point:

DP#2

[illegible]

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | | |
|---------------------------------------|--------------------------------|--------------------------------|
| ___ 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) |
| ___ Stratified Layers (A5) (LRR C) | ___ Depleted Matrix (F3) | ___ Other (Explain in Remarks) |
| ___ 1 cm Muck (A9) (LRR D) | ___ Redox Dark Surface (F6) | |
| ___ Depleted Below Dark Surface (A11) | ___ Depleted Dark Surface (F7) | |
| ___ Thick Dark Surface (A12) | ___ Redox Depressions (F8) | |
| ___ Sandy Mucky Mineral (S1) | ___ Vernal Pools (F9) | |
| ___ Sandy Gleyed Matrix (S4) | | |
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (Inches): _____

Hydric Soil Present? Yes _____ No /

Remarks:

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No / Depth (inches) _____

Water Table Present? Yes ☐ No ☒ Depth (inches)

Saturation Present? Yes No ☒ Depth (inches) _____

Saturation / Resent:
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

no evidence of hydrology in early granites

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Still Water Storage City/County: Kittitas Co Sampling Date: DP#3
 Applicant/Owner: _____ State: WA Sampling Point: 4-5-24
 Investigator(s): Ed Smith Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Phalaris amabilis</u>	<u>40</u>	<u>FACW</u>		
2. <u>Typha latifolia</u>	<u>20</u>	<u>FAC</u>		
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				
Remarks:				

Sampling Point: DP#3

HYDROLOGY			
Wetland Hydrology Indicators:			
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches)	
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches)	
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches)	12"
(includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Wetland name or number B

RATING SUMMARY – Eastern Washington

Name of wetland (or ID #): WLC Wetland B Date of site visit: 5-25-21

Rated by SP Swall Trained by Ecology? ☒ Yes ☐ No Date of training _____

HGM Class used for rating Deposited Wetland has multiple HGM classes? ☐ Y ☒ N

NOTE: Form is not complete without the figures requested (figures can be combined).

Source of base aerial photo/map _____

OVERALL WETLAND CATEGORY IV (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 Water Quality	Hydrologic	Habitat	
Circle the appropriate ratings				
Site Potential	H <u>M</u> L	H <u>M</u> L	H M <u>L</u>	
Landscape Potential	H <u>M</u> L	H <u>M</u> L	H <u>M</u> L	
Value	H M <u>L</u>	H <u>M</u> L	H <u>M</u> L	TOTAL
Score Based on Ratings	5	6	5	16

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

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Circle the appropriate category	
Vernal Pools	II III
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	II
Floodplain forest	II
None of the above	

Wetland name or number B

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 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 (<i>can be added to map of hydroperiods</i>)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	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 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)	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 (<i>can be added to another figure</i>)	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 (<i>can be added to another figure</i>)	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 (<i>can be added to another figure</i>)	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)	L 3.3	

Slope 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	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (<i>can be added to figure above</i>)	S 4.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including 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. Does the entire unit **meet both** of the following criteria?

☐ The vegetated part of the wetland is on the water side of the Ordinary High Water Mark of a body of permanent open water (without any plants on the surface) that is at least 20 ac (8 ha) in size.
☐ At least 30% of the open water area is deeper than 10 ft (3 m)

NO - go to 2

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

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

☐ The wetland is on a slope (*slope can be very gradual*),
☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks;
☐ The water leaves the wetland **without being impounded**.

NO - go to 3

YES - The wetland class is Slope

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

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

☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river;
☐ The overbank flooding occurs at least once every 10 years.

NO - go to 4

YES - The wetland class is Riverine

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

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

NO - go to 5

YES - The wetland class is Depressional

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.

Wetland name or number B

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 + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine (the riverine portion is within the boundary 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.*

Wetland name or number 3

DEPRESSIONAL WETLANDS		Points (only 1 score per box)
Water Quality Functions - Indicators that the site functions to improve water quality		
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland: Wetland has no surface water outlet Wetland has an intermittently flowing outlet Wetland has a highly constricted permanently flowing outlet Wetland has a permanently flowing, unconstricted, surface outlet	points = 5 points = 3 points = 3 points = 1	3
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions of soils) YES = 3 NO = 0		0
D 1.3. Characteristics of persistent vegetation (Emergent, Scrub-shrub, and/or Forested Cowardin classes) Wetland has persistent, ungrazed, vegetation for > 2/3 of area Wetland has persistent, ungrazed, vegetation from 1/3 to 2/3 of area Wetland has persistent, ungrazed vegetation from 1/10 to < 1/3 of area Wetland has persistent, ungrazed vegetation < 1/10 of area	points = 5 points = 3 points = 1 points = 0	5
D 1.4. Characteristics of seasonal ponding or inundation: This is the area of ponding that fluctuates every year. Do not count the area that is permanently ponded. Area seasonally ponded is > 1/2 total area of wetland Area seasonally ponded is 1/4 - 1/2 total area of wetland Area seasonally ponded is < 1/4 total area of wetland	points = 3 points = 1 points = 0	1
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 the first page

D 2.0. Does the landscape have the potential to support the water quality function of the site?		
D 2.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	0
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	1
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1- D 2.3? Source _____	Yes = 1 No = 0	0
Total for D 2	Add the points in the boxes above	1

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

D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, 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 where water quality is an issue in some aquatic resource (303(d) list, eutrophic lakes, problems with nuisance and toxic algae)?	Yes = 1 No = 0	0
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the drainage or basin in which the wetland is found)?	Yes = 2 No = 0	0
Total for D 3	Add the points in the boxes above	0

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

Wetland name or number B

DEPRESSIONAL WETLANDS		Points (only 1 score per box)
Hydrologic Functions - Indicators that the site functions to reduce flooding and erosion.		
D 4.0. Does the site have the potential to reduce flooding and erosion?		
D 4.1. Characteristics of surface water outflows from the wetland:	points = 8 points = 4 points = 4 points = 0	4
Wetland has no surface water outlet		
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 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).	points = 8 points = 6 points = 4 points = 4 points = 2 points = 0	2
Seasonal ponding: > 3 ft above the lowest point in wetland or the surface of permanent ponding		
Seasonal ponding: 2 ft - < 3 ft above the lowest point in wetland or the surface of permanent ponding		
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	6

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




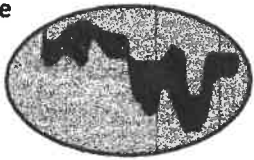
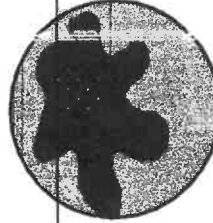
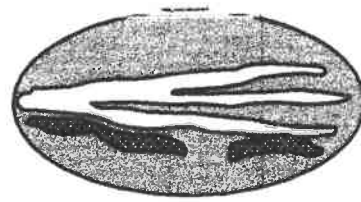
D 5.0. Does the landscape have the potential to support the hydrologic functions of the site?		
D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0	0
D 5.2. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff?	Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin 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	1

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

D 6.0. Are the hydrologic functions provided by the site valuable to society?		
D 6.1. The 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	points = 2	1
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 _____		
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?		
Yes = 2 No = 0		0
Total for D 6	Add the points in the boxes above	1

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

Wetland name or number B

These questions apply to wetlands of all HGM classes.		(only 1 score per box)
HABITAT FUNCTIONS - Indicators that site functions to provide important habitat		
H 1.0. Does the wetland have the potential to provide habitat for many species?		
<p>H 1.1. Structure of the plant community:</p> <p>Check the Cowardin vegetation classes present and categories of emergent plants. Size threshold for each category is $\geq \frac{1}{4}$ ac or $\geq 10\%$ of the wetland if wetland is < 2.5 ac.</p> <p><input type="checkbox"/> Aquatic bed</p> <p><input type="checkbox"/> Emergent plants 0-12 in (0-30 cm) high are the highest layer and have $> 30\%$ cover</p> <p><input checked="" type="checkbox"/> Emergent plants >12-40 in (>30-100 cm) high are the highest layer with $> 30\%$ cover</p> <p><input type="checkbox"/> Emergent plants > 40 in (> 100 cm) high are the highest layer with $> 30\%$ cover</p> <p><input type="checkbox"/> Scrub-shrub (areas where shrubs have $> 30\%$ cover)</p> <p><input checked="" type="checkbox"/> Forested (areas where trees have $> 30\%$ cover)</p>	<p>4 or more checks: points = 3</p> <p>3 checks: points = 2</p> <p><u>2 checks: points = 1</u></p> <p>1 check: points = 0</p>	1
H 1.2. Is one of the vegetation types Aquatic Bed?	Yes = 1 No = 0	0
H 1.3. Surface water		
<p>H 1.3.1. Does the wetland have areas of open water (without emergent or shrub plants) over at least $\frac{1}{4}$ ac OR 10% of its area during the March to early June OR in August to the end of September? Answer YES for Lake Fringe wetlands.</p> <p>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 $\frac{1}{4}$ ac or 10% of its area? Answer yes only if H 1.3.1 is No.</p>	<p>Yes = 3 points & go to H 1.4 (No = go to H 1.3.2)</p> <p>Yes = 3 (No = 0)</p>	0
H 1.4. Richness of plant species		
<p>Count the number of plant species in the wetland that cover at least 10 ft^2. Different patches of the same species can be combined to meet the size threshold. You do not have to name the species.</p> <p>Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Russian olive, Phragmites, Canadian thistle, yellow-flag iris, and saltcedar (Tamarisk)</p> <p># of species _____</p>	<p>Scoring: > 9 species: points = 2</p> <p><u>4-9 species: points = 1</u></p> <p>< 4 species: points = 0</p>	1
<p>H 1.5. Interspersion of habitats</p> <p>Decide from the diagrams below whether interspersions among types of plant structures (described in H 1.1), and unvegetated areas (open water or mudflats) is high, moderate, low, or none.</p> <p>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.</p>		Figure__
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>None = 0 points</p> </div> <div style="text-align: center;">  <p>Low = 1 point</p> </div> <div style="text-align: center;">  <p>Moderate = 2 points</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  <p>Riparian braided channels with 2 classes</p> </div> </div> <p>All three diagrams in this row are High = 3 points</p>		1

Wetland name or number B

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.
- ☐ 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.
- ☐ 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, herbaceous, moss/ground cover)

Total for H 1

Add the points in the boxes above

4

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

H 2.0. Does the landscape have the potential to support habitat functions of the site?

H 2.1. Accessible habitat (only area of habitat abutting wetland). If total accessible habitat is:

- Calculate: 3 % undisturbed habitat 9 + [(% moderate and low intensity land uses)/2] 5 = 8 %
 > 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

H 2.2. Undisturbed habitat in 1 km Polygon around wetland.

- Calculate: 50% undisturbed habitat 30 + [(% moderate and low intensity land uses)/2] 15 = 45 %
 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

H 2.3. Land use intensity in 1 km Polygon:

- > 50% of Polygon is high intensity land use points = (2)
 Does not meet criterion above points = 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 (No = 0)

Total for H 2

Add the points in the boxes above

3

Rating 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: 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
 - ☐ It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan
- Site has 1 or 2 priority habitats within 100 m (see Appendix B) points = 1
 Site does not meet any of the criteria above points = 0

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

Wetland name or number B

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 <small>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</small>	Category
SC 1.0. Vernal pools Is the wetland less than 4000 ft ² , and does 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. — Wetland plants are typically present only in the spring; the summer vegetation is typically upland annuals. <i>If you find perennial, obligate, wetland plants, the wetland is probably NOT a vernal pool.</i> — The soil in the wetland is shallow [< 1 ft (30 cm) deep] and is underlain by an impermeable layer such as basalt or clay. — Surface water is present for less than 120 days during the wet season. <div style="text-align: right;">Yes – Go to SC 1.1 No = Not a vernal pool</div>	
SC 1.1. Is the vernal pool relatively undisturbed in February and March? <div style="text-align: right;">Yes – Go to SC 1.2 No = Not a vernal pool with special characteristics</div>	
SC 1.2. Is the vernal pool in an area where there are at least 3 separate aquatic resources within 0.5 mi (other wetlands, rivers, lakes etc.)? <div style="text-align: right;">Yes = Category II No = Category III</div>	Cat. II Cat. III
SC 2.0. Alkali wetlands Does the wetland meet one of the following criteria? — The wetland has a conductivity > 3.0 mS/cm. — The wetland has a conductivity between 2.0 and 3.0 mS, and more than 50% of the plant cover in the wetland can be classified as “alkali” species (see Table 4 for list of plants found in alkali systems). — If the wetland is dry at the time of your field visit, the central part of the area is covered with a layer of salt. 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 — More than $\frac{1}{4}$ 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 that some freshwater wetlands may also have a high pH. Thus, pH alone is not a good indicator of alkali wetlands. <div style="text-align: right;">Yes = Category I No = Not an alkali wetland</div>	Cat. I
SC 3.0. Wetlands of High Conservation Value (WHCV) SC 3.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? <div style="text-align: right;">Yes – Go to SC 3.2 No – Go to SC 3.3</div> SC 3.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? <div style="text-align: right;">Yes = Category I No = Not a WHCV</div> SC 3.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasetsearch/wnhp/wetlands.pdf <div style="text-align: right;">Yes – Contact WNHP/WDNR and go to SC 3.4 No = Not a WHCV</div> 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? <div style="text-align: right;">Yes = Category I No = Not a WHCV</div>	Cat. I

Wetland name or number B

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? <i>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.</i>	Cat. I	
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? <i>See Appendix C for a field key to identify organic soils.</i>	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 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? 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.	Yes = Category I bog No – Go to SC 4.4		
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?	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	Cat. I	
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: — Marl deposits [calcium carbonate (CaCO ₃) precipitate] occur on the soil surface or plant stems — 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		
SC 5.0. Forested Wetlands		Cat. I	
Does the wetland have an area of forest rooted within its boundary that meets at least one of the following three criteria? (<i>Continue only if you have identified that a forested class is present in question H 1.1</i>) — The wetland is within the 100 year floodplain of a river or stream — 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 (<i>see definitions in question H3.1</i>)			
Yes – Go to 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 growing native trees (<i>see Table 7</i>)?	Yes = Category I No – Go to SC 5.2		Cat. I
SC 5.2. Does the wetland have areas where aspen (<i>Populus tremuloides</i>) represents at least 20% of the total cover of woody species?	Yes = Category I No – Go to SC 5.3		
SC 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 (<i>see Table 7</i>)?	Yes = Category II No – Go to SC 5.4	Cat. II	
SC 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		
Category of wetland based on Special Characteristics Choose the highest rating if wetland falls into several categories If you answered No for all types, enter “Not Applicable” on Summary Form		NA	

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

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland: **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.

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