

Sewall Wetland Consulting, Inc.

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October 28, 2021

Andy Schmidt
300 MissionView Drive
Ellensburg, Washington 98926

RE: Critical Area Report – Schmidt Property
City of Ellensburg, Washington
SWC Job #19-194

Dear Andy,

This report describes our observations of any jurisdictional wetlands, streams and/or buffers on Parcels #12132, 12133, 958408, 536136, 956816-829, in unincorporated Kittitas County, Washington (the “site”). The site consists of 18 abutting parcels with a total area of 136.55 acres and located south of Game Farm Road within the NW ¼ of Section 32, Township 18 North, Range 19 East of the W.M.

METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site in early October of 2021. 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 the City of Ellensburg for wetland determinations and delineations. The site was also reviewed using methodology described in Soil colors were identified using the 1990 Edited and Revised Edition of the **Munsell Soil Color Charts** (Kollmorgen Instruments Corp. 1990).

Due to the season flood irrigation of the site and the regional high water levels in September at the end of the irrigation season, observations of the site were conducted in early October at the end and peak of the high water table season. All irrigation on the site had been off for several weeks prior to our site inspection.



Above: Vicinity Map of site



Above: Aerial photograph from Kittitas Mapsifter website

This combination of no irrigation water on the site for several weeks, as well as the seasonal regional high water period, would give us an accurate depiction of what areas on the site had wetland hydrology with no local flood irrigation influence.

A series of 53 soil pits/data points were excavated on the site to characterize the plant, soil and hydrology conditions.

OBSERVATIONS

Existing Site Documentation.

Prior to visiting the site, a review of several natural resource inventory maps was conducted. Resources reviewed included the National Wetland Inventory Map and the NRCS Soil Survey online mapping and Data, Kittitas County TaxSifter website, WADNR Fpars water type mapping and the WDFW Priority Habitats and species mapping.

National Wetlands Inventory (NWI)

The NWI map depicts several emergent wetlands on the site, all of which correspond to historic and ongoing flood irrigation patterns on the site. In addition Naneum Creek is depicted to the east of the site. Irrigation ditches are also inaccurately depicted as stream type features.

The USFWS data indicates this wetland was mapped in 2017 and not field checked during the inventory. This wetland depiction appears to be the historic pattern of flood irrigation flow paths that are no longer present on the site. The Inventory mapping for Kittitas County specifically states for this area;

Inventory Method:

Wetland identification and interpretation was done "heads-up" using ArcMap versions 10.5-10.6. US Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping contractors in Portland, Oregon completed the original aerial photo interpretation and wetland mapping. Primary authors: Michael Holscher, Josh Moss, Tim O'Neill, and Rick Griffin of SWCA Environmental Consulting. QC during the mapping was provided by members of the mapping team. Regional wetland guidance, oversight and final QA for the submitted mapping project were completed by Bill Kirchner, Region 1, USFWS, NWI.

Field reconnaissance was not conducted

Funding for the project was provided by the Washington Department of Ecology.

Data Limitations:

The user of the map is cautioned that, due to the limitation of mapping primarily through aerial photo interpretation, a small percentage of wetlands may have gone unidentified. Since the photography was taken during a particular time and season, there may be discrepancies between the map and current field conditions. Changes in the landscape which occurred after the photography was taken would result in such discrepancies.



Above: NWI map of the area of the site

Soil Survey

According to the NRCS Soil Mapper website, the site is mapped as containing 10 soil types including Nanum, Nack, Manastash, Brickmill, Tahaha, Nack-Brickmill complex and Brickmill-Nanum complex soils. All of these soils are cobbly soils formed in alluvium with drainage classes from somewhat poorly drained to well drained. None of these soil series

are considered "hydric" or wetland soils according to the publication *Hydric Soils of the United States* (USDA NTCHS Pub No.1491, 1991).



Above: NRCS soil map of the site.

Kittitas County Mapsifter

The Kittitas County Mapsifter website depicts three different emergent wetlands on the site, one on the west side of the site and two on the eastern side of the site.



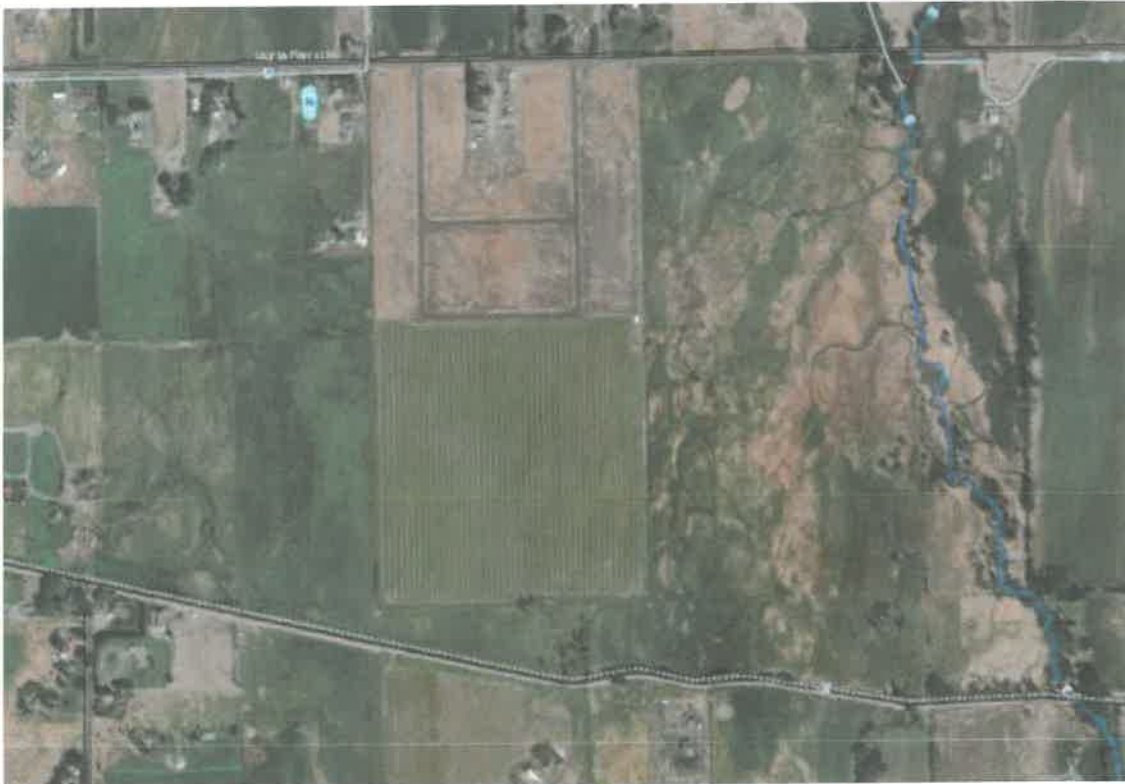
Above: Kittitas County wetland and stream mapping of the site.

WDNR Fpars Stream Mapping

According to the WDNR Fpars stream mapping website, Naneum Creek, a Type S water, is located just east of the site.

WDFW Priority Habitats and Species Maps

The WDFW Priority Habitats and Species mapping for the site depicts a portion of the site as wetland somewhat similar to the NWI mapping of the site. No species specific locations of any listed species are depicted on the site.



Above: WADNR Fpars stream mapping of the site



Above: WDFW Priority habitat mapping of the area of the site.

Field observations

The site is a large flat agricultural site used primarily as grazing lands for cattle as well as growing Timothy hay. The site has a slight slope to the south which is used to facilitate flood irrigation of the site. The site is irrigated with numerous irrigation ditches and a combination of flood irrigation from the ditches, as well as from pipe (Parcels # 958408, 12132 & 12133). This irrigation water seeps across the site from north to south and generally collects along the south side of the site bordering the Cascade Canal. Several irrigation collection pipes pass this water to the south for other users. The main irrigation ditches on the site are shown below with yellow lines;



Above: Main irrigation ditches (yellow lines) that flow across the site.

The site is characterized by a grazed plant community of a mix of weeds and various pasture grasses. The site is irrigated enough during the summer to maintain grass growth for the cattle grazing the site. As a result some wetland species have colonized the site from the irrigation water influence creating seasonal artificially wet soils. In addition, some

area of heavy flood irrigation have some evidence of hydric soils, but with the exception of the identified delineated wetlands, lack any hydrology indicators when the flood irrigation ceases.

Species noted in the pastures include tall fescue, quackgrass, timothy, sedge, Baltic rush, cheat grass, bentgrass, sedge, thistle, aster and some knapweed and reed canard grass.

Soils on the site are very cobbly and extremely compact as a result of years of cattle grazing and the natural characteristics of the soil types found on the site. In general the soils on the site have soil chroma colors of 3 or 2 without any redoximorphic features. Portions of the site include cobbly sandy loams with similar soil colors.



Above: General location of Wetlands, A-E and Naneum Creek. Note: pale blue lines are irrelevant track lines for the gps and do not indicate any wetland or stream edge.

Areas within the irrigation channels has some wetland species and hydric soil indicators, particularly on the eastern side of the site which has numerous flood irrigation paths and ditches. However, wetland hydrology was not present during our site inspections on any of the site areas except those wetland areas identified along the south property line. The remaining area within the pastures outside the wetland delineations

are clearly irrigation features, man-made and should not be regulated as jurisdictional wetlands as they lack hydrology indicators without direct irrigation.

Wetlands

The southern end of the site contained five separate areas which did contain soil saturation within the upper 12" during our site inspections, as well as hydric soil and hydrophytic plants. These areas were identified as wetlands. These areas all consists of grazed pasture areas at the southern border of the site along the north edge of the Cascade Canal and represent the lowest point on the site. These areas are all located within the collection points for all flood water that passes across the site. It's probable these areas maintain a higher level of soil saturation from the fact they receive all this irrigation water, as well as are located along the canal, which clearly has leaks and remains full during the entire growing season from April to October. The canal water undoubtedly raises groundwater in the areas along its sides and has influenced these areas hydrology. Below is a description of the wetlands found on the site;

Wetland A

Wetland A consists of a grazed pasture wetland located along the south end of the site and gps located with points 181-199. This wetland is located along the tail end of an irrigation ditch as well as the edge of the canal which has a low point where water seeps.



Above: Location of Wetland A & B. Note: pale blue lines are irrelevant track lines for the gps and do not indicate any wetland or stream edge.

Species noted within the wetland include tall fescue, soft rush, reed canary grass and some cattail in the ditched portion along the canal border.

Soil pits excavated within this wetland area revealed a cobbly loam with a B-horizon soil color of 10YR 3/2 with common, medium, distinct, redoximorphic concentrations. Soils were saturated near the surface during our observation of the wetland.

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, and rating this wetland as a “depressional” wetland, this wetland scored a total of 13 points with 3 for habitat. This indicates a Category IV wetland. According to Kittitas County Municipal Code chapter 17A.04.020 (Buffer width requirements), Category IV wetlands over 1 acre in size have a buffer which consists of the zoning line setbacks and shall not exceed 25’;

<u>Category</u>	<u>Size of Wetland</u>	<u>Required Buffer</u>
I	any size	50 - 200 feet
II	over 2,000 sq. ft.	25 - 100 feet
III	over 10,000 sq. ft.	20 - 80 feet
IV*	43,560 sq. ft. (1 acre)	Building setbacks will be determined by the zoning lot line setbacks, but shall not exceed 25 feet.

**Includes only non irrigation induced or enhanced Category IV wetlands. Irrigation water does influence ground water table elevations in Kittitas County.*

Wetland B-E

Wetland B-E consists of very similar grazed emergent wetlands in very close proximity located east of Wetland A, and like Wetland A, are located along the perimeter of the north edge of the Cascade Canal. These areas were identified by GPS points 202-214 for Wetland B, 215-226 for Wetland C, 227-239 for Wetland D and 240-245 for Wetland E.



Above: Locations of Wetland B-E. Note: pale blue lines are irrelevant track lines for the gps and do not indicate any wetland or stream edge.

Species noted within these wetlands include tall fescue, soft rush, reed canary grass, spike rush, hard stem bulrush, smartweed, and some cattail in the ditched portion along the canal border.

Soil pits excavated within this wetland area revealed a mix of cobbly and sandy loam with a B-horizon soil color of 10YR 3/2 with common,

medium, distinct, redoximorphic concentrations. Soils saturated near the surface during our observation of the wetland.

These wetlands are so similar and in such close proximity, they were rated as one wetland 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, and rating this wetland as a “depressional” wetland, this wetland scored a total of 13 points with 3 for habitat. This indicates a Category IV wetland. According to Kittitas County Municipal Code chapter 17A.04.020 (Buffer width requirements), Category IV wetlands over 1 acre in size have a buffer which consists of the zoning line setbacks and shall not exceed 25’;

<u>Category</u>	<u>Size of Wetland</u>	<u>Required Buffer</u>
<i>I</i>	<i>any size</i>	<i>50 - 200 feet</i>
<i>II</i>	<i>over 2,000 sq. ft.</i>	<i>25 - 100 feet</i>
<i>III</i>	<i>over 10,000 sq. ft.</i>	<i>20 - 80 feet</i>
<i>IV*</i>	<i>43,560 sq. ft. (1 acre)</i>	<i>Building setbacks will be determined by the zoning lot line setbacks, but shall not exceed 25 feet.</i>

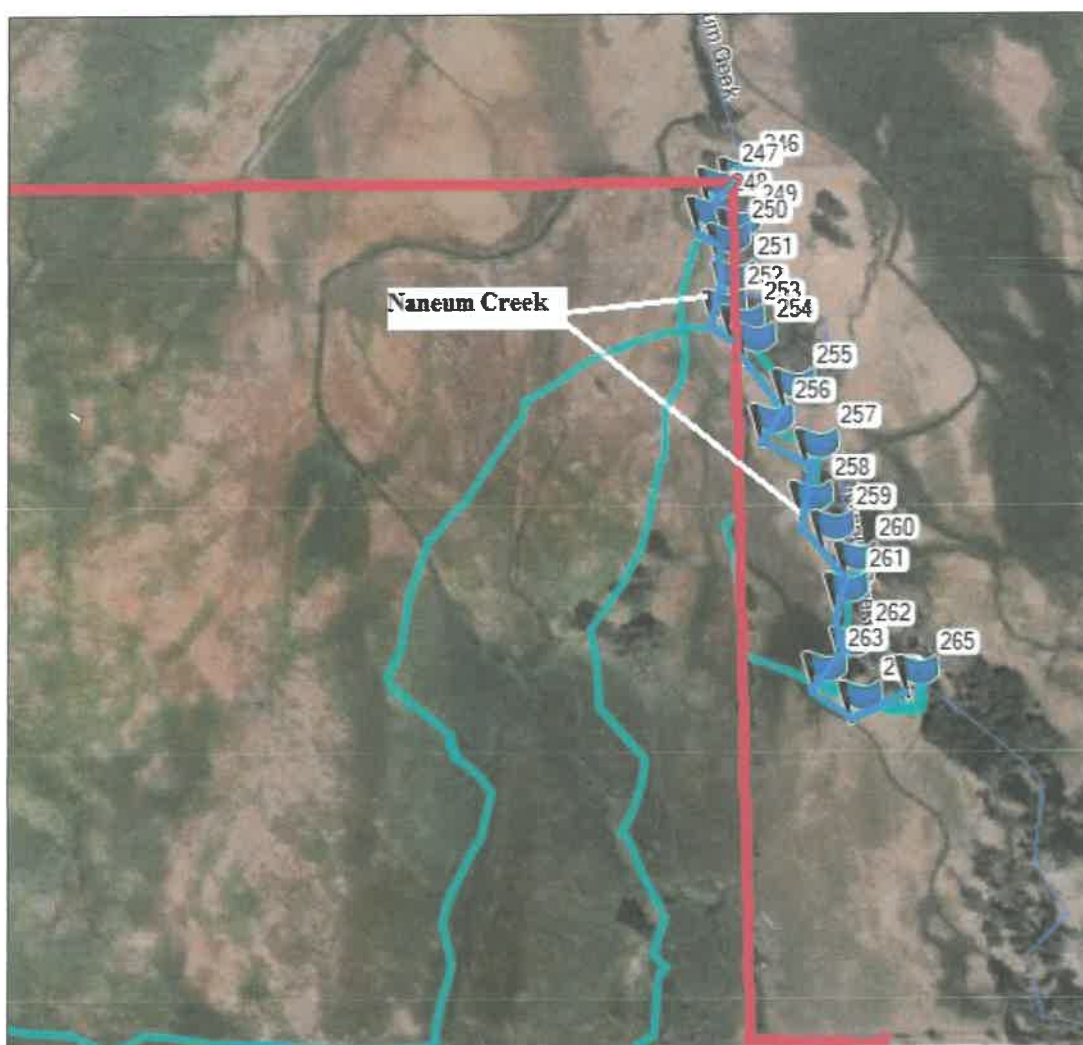
**Includes only non irrigation induced or enhanced Category IV wetlands. Irrigation water does influence ground water table elevations in Kittitas County.*

Streams

Naneum Creek is located along the northeast corner of the site. The Creek is located within the Rural Conservancy zone of the shoreline. The western OHM of the creek was located on the site and within 100’ of the site with gps points 246-265. Naneum Creek is designated as a Type S water or a Shoreline of the site. According to Table 17B.05.050-1 of the Kittitas County Shoreline regulations, Type S waters with a Rural Conservancy designation have a 100’ buffer measured from the OHWM.

17B.05.050-1. Standard Shoreline Buffers (Type S Waters)

Shoreline Environment Designation	Type S Standard Shoreline Buffer Width (feet)
Urban Conservancy	100
Shoreline Residential	100
Rural Conservancy	100
Natural	150



Above: Naneum Creek OHWM located on the northeast corner of the site.
 Note: pale blue lines are irrelevant track lines for the gps and do not indicate any wetland or stream edge.

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: Data sheets
Rating forms and associated exhibits



Approximate data point locations

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.

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.

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 name or number _____

RATING SUMMARY -- Eastern Washington

Name of wetland (or ID #): Schult Date of site visit: 10-4-21
Rated by Ed Smith Trained by Ecology? Yes No Date of training _____
HGM Class Used for Rating Depressed Unit 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

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 M L	H M L	H M L
Landscape Potential	H M L	H M L	H M L
Value	H M L	H M L	H M L
Score Based on Ratings	6	5	3

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

SPECIAL CHARACTERISTIC	CATEGORY Circle the appropriate category
Vernal Pools	II III
Alkali	I
Wetland with high conservation value	I
Bog	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 A

Maps and figures required to answer questions correctly (Eastern Washington)

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes and classes of emergents	D1.3, H1.1, H1.4	
Hydroperiods	D1.4, H1.2, H1.3	
Location of outlet (can be added to map of hydroperiods)	D1.1, D1.4	
Boundary of 150 ft buffer (can be added to another figure)	D2.2, D5.2	
Polygon of area 1km from wetland edge - including polygons for accessible habitat and undisturbed habitat	H2.1, H2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	D3.1, D3.2	
Screen capture of map of TMDL's for WRIA in which unit is found (from web)	D3.3	
Area of open water (can be added to map of hydroperiods)	H1.3.1	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes and classes of emergents	H1.1, H1.4	
Hydroperiods	H1.2, H1.3	
Ponded depressions	R1.1	
Boundary of 150 ft buffer (can be added to another figure)	R2.4	
Plant cover of trees, shrubs, and herbaceous plants	R1.2, R4.2	
Width of unit vs. width of stream (can be added to another figure)	R4.1	
Polygon of area 1km from wetland edge - including polygons for accessible habitat and undisturbed habitat	H2.1, H2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	R3.1	
Screen capture of map of TMDL's for WRIA in which unit is found (from web)	R3.2, R3.3	

Lake-fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes and classes of emergents	L1.1, L4.1, H1.1, H1.4	
Plant cover of trees, shrubs, and herbaceous plants	L1.2	
Boundary of 150 ft buffer (can be added to another figure)	L2.2	
Polygon of area 1km from wetland edge (including polygons for accessible habitat and undisturbed habitat)	H2.1, H2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	L3.1	
Screen capture of map of TMDL's for WRIA in which unit is found (from web)	L3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes and classes of emergents	H1.1, H1.4	
Hydroperiods	H1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S4.1	
Boundary of 150 ft buffer (can be added to another figure)	S2.1, S5.1	
Polygon of area 1km from wetland edge (including polygons for accessible habitat and undisturbed habitat)	H2.1, H2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	S3.1, S3.2	
Screen capture of map of TMDL's for WRIA in which unit is found (from web)	S3.3	

Wetland name or number:

HGM Classification of Wetland Units in Eastern Washington

For questions 1-4 the criteria described must apply to the entire unit being rated for it to be classified correctly.
If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a wetland 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 wetland 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 acres (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.
___ Does the water leave the wetland without being impounded?
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 <3ft diameter and less than 1 foot deep).
NO - go to 3 YES - The wetland class is **Slope**
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 ten years.
NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding.
NO - go to 4 YES - The wetland class is **Riverine**
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. IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM

Wetland name or number: 4

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

HGM Classes within the wetland unit being rated	HGM Class to Use in Rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine (the riverine portion is within the boundary of depression)	Depressional
Depressional + Lake-fringe	Depressional
Riverine + Lake-fringe	Riverine

If you are unable still 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: A

DEPRESSIONAL WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality.

Points (only 1 score per box)	
3	D 1.0 Does the wetland unit have the potential to improve water quality? D 1.1 Characteristics of surface water flows out of the wetland unit: Wetland has no surface water outlet - points = 5 Wetland has an intermittently flowing outlet - points = 3 Wetland has a highly constricted permanently flowing outlet - points = 3 Wetland has a permanently flowing surface outlet - points = 1 D 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (use MHC definitions of soils) YES points = 3 NO points = 0 D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class) Wetland has persistent, ungrazed, vegetation for > 2/3 of area - points = 5 Wetland has persistent, ungrazed, vegetation from 1/3 to 2/3 of area - points = 3 Wetland has persistent, ungrazed vegetation from 1/10 to < 1/3 of area - points = 1 Wetland has persistent, ungrazed vegetation < 1/10 of area - points = 0 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 - points = 3 Area seasonally ponded is 1/4 - 1/2 total area of wetland - points = 1 Area seasonally ponded is < 1/4 total area of wetland - points = 0 Total for D 1: Add the points in the boxes above 3

Points (only 1 score per box)	
0	D 2.0 Does the landscape have the potential to support the water quality function at the site? Record the rating on the first page D 2.1 Does the Wetland unit receive stormwater discharges? Yes = 1 (No = 0) D 2.2 Is > 10% of the buffer within 150 ft of wetland unit in land uses that generate pollutants? Yes = 1 (No = 0) D 2.3 Are there are septic systems within 350 ft of the wetland unit? Yes = 1 (No = 0) D 2.4 Are there are 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) 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

Points (only 1 score per box)	
1	D 3.0 Is the water quality improvement provided by the site valuable to society? D 3.1 Does the unit discharge directly (within 1 mile) to a stream, river, or lake that is on the 303(d) list? Yes = 1 (No = 0) D 3.2 Is the unit in a basin or sub-basin where water quality is an issue in some aquatic resource (BOD list, eutrophic lakes, problems with nuisance and toxic algae)? Yes = 1 (No = 0) D 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality? (answer YES if there is a TMDL for the drainage or basin in which unit is found) Yes = 1 (No = 0) Total for D 3: Add the points in the boxes above 1 Rating of Value If score is: 2-4 = H 1 = M 0 = L Record the rating on the first page

Wetland name or number: A

DEPRESSIONAL WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion.

Points (only 1 score per box)	
4	D 4.0 Does the wetland unit have the potential to reduce flooding and erosion? D 4.1 Characteristics of surface water flows out of the wetland unit: Wetland has no surface water outlet - points = 8 Wetland has an intermittently flowing outlet - points = 4 Wetland has a highly constricted permanently flowing outlet - points = 4 Wetland has a permanently flowing surface outlet - points = 0 (If outlet is a ditch and not permanently flowing treat unit as "Intermittently flowing") D 4.2 Depth of storage during wet periods Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry). Seasonal ponding: > 3 ft above the lowest point in unit or the surface of permanent ponding - points = 8 Seasonal ponding: 2 ft - < 3 ft above the lowest point in unit or the surface of permanent ponding - points = 6 The wetland is a "headwater" wetland - points = 4 Seasonal ponding: 1 ft - < 2 ft - points = 4 Seasonal ponding: 0 ft - < 1 ft - points = 2 Seasonal ponding: < 6 in or unit has only saturated soils - points = 0 Total for D 4: Add the points in the boxes above 4

Points (only 1 score per box)	
0	D 5.0 Does the landscape have the potential to support hydrologic functions at the site? Record the rating on the first page D 5.1 Does the unit receive any stormwater discharges? Yes = 1 (No = 0) D 5.2 Is > 10% of the land use within 150 ft of the wetland in a land uses that generates runoff? Yes = 1 (No = 0) D 5.3 Is more than 25% of the contributing basin of the wetland unit covered with intensive human land uses? Yes = 1 (No = 0) Total for D 5: Add the points in the boxes above 0 Rating of Landscape Potential If score is: 3 = H 2 = M 0 = L Record the rating on the first page

Points (only 1 score per box)	
1	D 6.0 Are the hydrologic functions provided by the site valuable to society? D 6.1 Is the unit in a landscape that has flooding problems? Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow downgradient into areas where flooding has damaged human or natural resources (e.g. salmon redds), AND o Damage occurs in sub-basin that is immediately downgradient of unit - points = 2 o Damage occurs in a sub-basin further 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 unit. - points = 0 D 6.2 Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 (No = 0) Total for D 6: Add the points in the boxes above 1 Rating of Value If score is: 2-4 = H 1 = M 0 = L Record the rating on the first page

Wetland name or number A

These questions apply to wetlands of all HGM classes.		Only 1 score per bed
HABITAT FUNCTIONS - Indicators that site functions to provide important habitat		
H 1. Does the wetland unit have the potential to provide habitat for many species?		
H 1.1 Categories of vegetation structure Check the Cowardin vegetation classes present and categories of emergent plants. Size threshold for each category is $\geq 1/4$ acre or $\geq 10\%$ of the unit if unit is < 2.5 acres		
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) Forested (areas where trees have $> 30\%$ cover)	4-6 checks points = 3 3 checks points = 2 2 checks points = 1 1 check points = 0	0
H 1.2. Is one of the vegetation types "aquatic bed"? YES = 1 point NO = 0 points		
H 1.3. Surface Water H 1.3.1 Does the unit have areas of "open" water (without herbaceous or shrub plants) over at least $1/4$ acre OR 10% of its area during the March to early June OR in August to the end of September? Note: answer YES for Lake-fringe wetlands YES = 3 points & go to H 1.4 NO = go to H 1.3.2 H 1.3.2 Does the unit have an intermittent or permanent, and unvegetated stream within boundaries, or along one side, over at least $1/4$ acre or 10% of its area, (answer was only if H 1.3.1 is NO)? YES = 3 points NO = 0 points		
H 1.4. Richness of Plant Species Count the number of plant species in the wetland that cover at least 10 ft ² (different patches of the same species can be combined to meet the size threshold). You do not have to name the species. Do not include Eucalyptus, Yellow-flag iris, and Salt Cedar (Tamarix). Canadian Thistle, Yellow-flag iris, and Salt Cedar (Tamarix) # of species: <u>5</u> species = 2 points 4-9 species = 1 point 1-3 species = 0 points		
H 1.5. Interspersion of habitats Decide from the diagrams below whether interspersions between types of plant structures (described in H 1.1), and unvegetated areas (open water or mudflats) is high, medium, low, or none. Use map of Cowardin plant classes prepared for questions H1.1 and map of open water from H1.3		
NOTE: If you have four or more classes or three plants classes and open water the rating is always "high".		

Wetland name or number A

Check the habitat features that are present in the wetland unit. The number of checks is the score.		Only 1 score per bed
H 1.6. Special Habitat Features: Loose rocks larger than 4" or large, downed, woody debris (> 4 in. diameter) within the area of surface ponding or in stream. Cattails or bulrushes are present within the unit. Standing snags (diameter at the bottom > 4 inches) in the wetland unit 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)		Add the check marks in the box above Maximum score possible = 6
H 1.1 TOTAL Score -		2
Rating of Site Potential If score is: 12-16 = H 6-11 = M 0-5 = L Record the rating on the first page		
H 2.0. Does the landscape have the potential to support habitat at the site?		
H 2.1 Accessible habitat (only area of habitat abutting wetland unit). Calculate: % undisturbed habitat $\div$ [(% moderate and low intensity land uses)/2] = % If total accessible habitat is: $> 1/3$ (33.3%) of 1 km circle (~ 100 hectares) points = 3 20 - 33% of 1 km circle points = 2 10 - 19% of 1 km circle points = 1 $< 10\%$ of 1 km circle points = 0		
H 2.2 Undisturbed habitat in 1 km circle around unit. If: Undisturbed habitat $> 50\%$ of circle 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 circle points = 0		
H 2.3 Land use intensity in 1 km circle. If: $> 50\%$ of circle is high intensity land use points = 3 Does not meet criterion above points = 0 The wetland unit is in an area where annual rainfall is less than 12 inches, 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) points = 3		
Total for H 2		2
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M $< 1 = L$ Record the rating on the first page		
H 3.0 Is the Habitat provided by the site valuable to society? H 3.1 Does the site provides habitat for species valued in laws, regulations or policies? (choose the highest score) Site meets ANY of the following criteria: It provides habitat for Threatened or Endangered species (any plant or animal on state or federal lists) It is a "priority area" for an individual WDFW species points = 2 It is a Wetland With a High Conservation Value as determined by the Department of Natural Resources It has 3 or more priority habitats within 100m (see Appendix B) 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 100m (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		

7

A

Wetland name or number...

SC 3.0 Wetlands with High Conservation Value (WHCV)	Cat. I
SC 2.1 Has the Department of Natural Resources updated their web site to include the list of Wetlands with High Conservation Value? YES - go to SC 2.2 NO - go to SC 2.3 SC 2.2 Is the wetland unit you are rating listed on the DNR database as having a High Conservation Value? YES = Category I NO = not a WHCV SC 2.3 Is the wetland unit being rated in a Section/Township/Range that contains a Natural Heritage wetland? https://www1.dnr.wa.gov/info/refsearch/datasetsearch/baywetlands.pdf YES --- contact WNHPP/DNR and go to SC 2.4 NO = not a WHCV SC 2.4 HAS DNR identified the wetland within the S/T/R as a wetland with High Conservation value and is listed on their web site? YES = Category I NO = not a WHCV	
SC 4.0 Bogs and Calcareous Fens Does the wetland unit (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 unit have organic soil horizons (i.e. layers of organic soil), either peats or mucks, that compose 16 inches or more of the first 32 inches 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 unit have organic soils, either peats or mucks that are less than 16 inches 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 unit have more than 70% cover of mosses as 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" 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, Englemann's 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 question SC 4.5	
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 Question 6 6. Do the species listed in Table 6 comprise at least 10% of the total plant cover an area of peats and mucks, AND one of the two following conditions is met: • Marl deposits (calcium carbonate (CaCO3) precipitate) occur on the soil surface or plant stems • The pH of free water ≥ 6.8 AND electrical conductivity ≥ 200 $\mu\text{S}/\text{cm}$ at multiple locations within the wetland Yes - Is a Category I calcareous fen NO - Is not a calcareous fen	

Wetland name or number: A

SC 5.0 Forested Wetlands Does the wetland unit 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 a forested class is present in question H 1.1.) • aspen (<i>Populus tremuloides</i>) represents at least 20% of the total cover of woody species • There is at least 1/4 acre of trees (even in wetlands smaller than 2.5 acres) 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	
SC 5.1 Does the wetland unit 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	Cat. I
SC 5.2 Does the unit 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	Cat. I
SC 5.3 Does the wetland unit have areas 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 5.5	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	Cat. II
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 p.1	NA

Wetland name or number: A

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/wdow00165.pdf>)

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

- Aspen Stands:** Pure or mixed stands of aspen greater than 0.4 ha (1 acre).
- 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 p. 152).
- 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 25 trees/ha (10 trees/acre) that are > 53 cm (21 in) dbh, and 2.5-7.5 snags/ha (1 - 3 snags/acre) that are > 30-35 cm (12-14 in) 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 53 cm (21 in) 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:** Woodlands 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 7.6 m (25 ft) high and occurring below 5000 ft.
- Talus:** Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), 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 > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) 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 needlegrass (*Achnatherum* spp.).
- Juniper Savannas:** 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

B-E

Wetlands

B, C, D + E

RATING SUMMARY - Eastern Washington

Name of wetland (or ID #): Wetland B Schmidt Date of site visit: 10-7-21
Rated by: S. Smith Trained by Ecology? Yes No Date of training:
HGM Class Used for Rating: Dependent Unit 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

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 M L	H M L	H M L
Landscape Potential	H M L	H M L	H M L
Value	H M L	H M L	H M L
Score Based on Ratings	6	4	3

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
6 = H,M,M
5 = H,M,L
4 = M,M,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 with high conservation value	I
Bog	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-E

Maps and figures required to answer questions correctly (Eastern Washington)

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes and classes of emergents	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2, H 1.3	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 1.4	
Boundary of 150 ft buffer (can be added to another figure)	D 2.2, D 5.2	
Polygon of area 1km from wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	D 3.1, D 3.2	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	D 3.3	
Area of open water (can be added to map of hydroperiods)	H 1.3.1	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes and classes of emergents	H 1.1, H 1.4	
Hydroperiods	H 1.2, H 1.3	
Ponded depressions	R 1.1	
Boundary of 150 ft buffer (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	R 4.1	
Polygon of area 1km from wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	R 3.1	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake-fringe Wetlands

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

Slope Wetlands

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

Wetland name or number 3

HGM Classification of Wetland Units in Eastern Washington

For questions 1-4 the criteria described must apply to the entire unit being rated for it to be classified correctly.
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 wetland 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 acres (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.
Does the water leave the wetland **without being impounded**?
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 <3ft diameter and less than 1 foot deep).
NO - go to 3 YES - The wetland class is **Slope**
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 ten years.
NOTE: The riverine unit can contain depressions that are filled with water when the river is in flooding.
NO - go to 4 YES - The wetland class is **Riverine**
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. **IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT** (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM

Wetland name or number 3

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

HGM Classes within the wetland unit being rated	HGM Class to Use in Rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine (the riverine portion is within the boundary of depression)	Depressional
Depressional + Lake-fringe	Depressional
Riverine + Lake-fringe	Riverine

If you are unable still 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: B

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 wetland unit have the potential to improve water quality?		
D 1.1 Characteristics of surface water flows out of the wetland unit:		
Wetland has no surface water outlet	points = 5	30
Wetland has an intermittently flowing outlet	points = 3	
Wetland has a highly constricted permanently flowing outlet	points = 1	
D 1.2 The soil 2 inches below the surface (or diff layer) is clay or organic (use NRC's definitions of soils)		
YES points = 3	NO points = 0	
D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest toward in class)		
Wetland has persistent, ungrazed, vegetation for > 2/3 of area	points = 5	0
Wetland has persistent, ungrazed, vegetation from 1/3 to 2/3 of area	points = 3	
Wetland has persistent, ungrazed vegetation from 1/10 to < 1/3 of area	points = 1	
Wetland has persistent, ungrazed vegetation < 1/10 of area		points = 0
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 > 1/4 total area of wetland	points = 3	1
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
Total for D 1	Add the points in the boxes above	1

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 at the site?					
D 2.1 Does the Wetland unit receive stormwater discharges?					
Yes = 1 No = 0					
D 2.2 Is > 10% of the buffer within 150 ft of wetland unit in land uses that generate pollutants					
Yes = 1 No = 0					
D 2.3 Are there are septic systems within 250 ft of the wetland unit?					
Yes = 1 No = 0					
D 2.4 Are there are other sources of pollutants coming into the wetland that are not listed in questions D2.1 - D2.3? Source					
Yes = 1 No = 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 unit discharge directly (within 1 mile) to a stream, river, or lake that is on the 303(d) list?					
Yes = 1 No = 0					
D 3.2 Is the unit 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					
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 unit is found)					
Yes = 1 No = 0					
Total for D 3	Add the points in the boxes above				2

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

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Wetland name or number: B

DEPRESSIONAL WETLANDS		Points (only 1 score per box)
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion.		
D 4.0 Does the wetland unit have the potential to reduce flooding and erosion?		
D 4.1 Characteristics of surface water flows out of the wetland unit:		
Wetland has no surface water outlet	points = 8	5
Wetland has an intermittently flowing outlet	points = 4	
Wetland has a highly constricted permanently flowing outlet	points = 0	
D 4.2 Depth of storage during wet periods Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).		
Seasonal ponding: > 3 ft above the lowest point in unit or the surface of permanent ponding	points = 8	0
Seasonal ponding: 2 ft - < 3 ft above the lowest point in unit or the surface of permanent ponding	points = 6	
Seasonal ponding: 1 ft - < 2 ft	points = 4	
The wetland is a "headwater" wetland		points = 2
Seasonal ponding: 6 in - < 1 ft	points = 0	
Seasonal ponding: < 6 in or unit has only saturated soils		points = 0
Total for D 4	Add the points in the boxes above	5

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

D 5.0 Does the landscape have the potential to support hydrologic functions at the site?					
D 5.1 Does the unit receive any stormwater discharges?					
Yes = 1 No = 0					
D 5.2 Is > 10% of the land use within 150 ft of the wetland in a land use that generates runoff?					
Yes = 1 No = 0					
D 5.3 Is more than 25% of the contributing basin of the wetland unit covered with intensive human land uses?					
Yes = 1 No = 0					
Total for D 5	Add the points in the boxes above				1

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

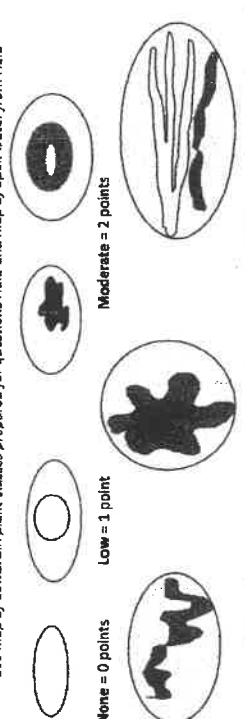
D 6.0 Are the hydrologic functions provided by the site valuable to society?					
D 6.1 Is the unit in a landscape that has flooding problems?					
Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.					
- The wetland captures surface water that would otherwise flow downgradient into areas where flooding has damaged human or natural resources (e.g. salmon redds), AND - Damage occurs in sub-basin that is immediately downgradient of unit - Damage occurs in a sub-basin further 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 unit.					
D 6.2 Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?					
Yes = 2 No = 0					
Total for D 6	Add the points in the boxes above				2

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

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Wetland name or number B

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat		(only 1 score per box)
H 1.1. Does the wetland unit have the potential to provide habitat for many species?		
H 1.1. Categories of vegetation structure Check the Cowardin vegetation classes present and categories of emergent plants. Size threshold for each category is >= 1/4 acre or >= 10% of the unit if unit is < 2.5 acres		
____ Emergent plants 0-12 in. (0 - 30 cm) high are the highest layer and have > 30% cover points = 3 ____ Emergent plants >12 - 40 in. (>30 - 100cm) high are the highest layer with >30% cover points = 2 ____ Emergent plants > 40 in. (> 100cm) high are the highest layer with >50% cover points = 1 ____ Scrub/shrub (areas where shrubs have >30% cover) 4-6 checks ____ Forested (areas where trees have >30% cover) 3 checks 2 checks 1 check points = 0		
H 1.2. Is one of the vegetation types "aquatic bed?" YES = 1 point NO = 0 points		
H 1.3. Surface Water H 1.3.1 Does the unit have areas of "open" water (without herbaceous or shrub plants) over at least 1/4 acre OR 10% of its area during the March to early June OR in August to the end of September? Note: answer YES for Lake-fringe wetlands YES = 3 points & go to H 1.4 NO = go to H 1.3.2		
H 1.3.2 Does the unit have an intermittent or permanent, and unvegetated stream within its boundaries, or along one side, over at least 1/4 acre or 10% of its area, (answer yes only if H 1.3.1 is NO)? YES = 3 points NO = 0 points		
H 1.4. Richness of Plant Species Count the number of plant species in the wetland that cover at least 10 ft ² . (different patches of the same species can be combined to meet the site threshold) You do not have to name the species. Do not include European Milfoil, reed canarygrass, purple loosestrife, Russian Olive, Phragmites, Canadian Thistle, Yellow-flap Iris, and Salt Cedar (Tamarisk) # of species ____ Scoring: > 9 species = 2 points 4-9 species = 1 point < 4 species = 0 points		
H 1.5. Interspersion of habitats Decide from the diagrams below whether interspersions between types of plant structures (described in H 1.1), and unvegetated areas (open water or mudflats) is high, medium, low, or none. Use map of Cowardin plant classes prepared for questions H1.1 and map of open water from H1.3		
 None = 0 points Low = 1 point Moderate = 2 points High = 3 points NOTE: If you have four or more classes or three plant classes and open water the rating is always "High".		

Wetland name or number B

H 1.6. Special Habitat Features: Check the habitat features that are present in the wetland unit. The number of checks is the score. ____ Loose rocks larger than 4" g. large, downed, woody debris (>4in. diameter) within the area of surface ponding or in stream. ____ Cattails or bulrushes are present within the unit. ____ Standing snags (diameter at the bottom > 4 inches) in the wetland unit or within 30 m (100ft) 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) Maximum score possible = 6	
H 1. TOTAL Score -	Add the check marks in the box above

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

H 2.0. Does the landscape have the potential to support habitat at the site?	
H 2.1 Accessible habitat (only area of habitat abutting wetland unit). Calculate: % undisturbed habitat $\frac{1}{2} + \frac{1}{2} \times \frac{(\% \text{ moderate and low intensity land uses})}{2}$ = % If total accessible habitat is: > 1/3 (33.3%) of 1km circle (~100 hectares) points = 3 20 - 33% of 1km circle points = 2 10 - 19% of 1km circle points = 1 <10% of 1km circle points = 0	
H 2.2 Undisturbed habitat in 1km circle around unit. If: Undisturbed habitat > 50% of circle 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 circle points = 0	
H 2.3 Land use intensity in 1 km circle. If: > 50% of circle is high intensity land use points = 2 Does not meet criterion above points = 0	
The wetland unit is in an area where annual rainfall is less than 12 inches, 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) points = 3	
Total for H 2	Add the points in the boxes above
Rating of Landscape Potential	If score is: 4 - 6 = H 1 - 3 = M < 1 = L Record the rating on the first page

H 3.0 Is the Habitat provided by the site valuable to society?

H 3.1 Does the site provides habitat for species valued in laws, regulations or policies? (choose the highest score) Site meets ANY of the following criteria: ____ It provides habitat for Threatened or Endangered species (any plant or animal on state or federal lists) points = 2 ____ It is a "priority area" for an individual WDFW species ____ It is a Wetland With a High Conservation Value as determined by the Department of Natural Resources ____ It has 3 or more priority habitats within 100m (see Appendix B) ____ 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 100m (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 unit 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 units should also be characterized based on their functions.

Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met. SC 1.0 Vernal pools Is the wetland unit less than 4000 ft², 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>NOTE: If you find perennial, "obligate", wetland plants the wetland is probably NOT a vernal pool.</i> — The soil in the wetland is shallow (<1ft deep (30 cm)) 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. 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 there are at least 3 separate aquatic resources within 0.5 miles (other wetlands, rivers, lakes etc.)? YES = Category II NO = Category III SC 2.0 Alkali wetlands Does the wetland unit meet one of the following two criteria? — The wetland has a conductivity > 3.0 mS/cm. — The wetland has a conductivity between 2.0 - 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 80% of the edge of the wetland — More than ¼ 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. YES = Category I NO = not an alkali wetland	Cat. II Cat. III Cat. I

Wetland name or number: B

SC 3.0 Wetlands with High Conservation Value (WHCV)

SC 2.1 Has the Department of Natural Resources updated their web site to include the list of Wetlands with High Conservation Value?

YES - Go to SC 2.2
NO - Go to SC 2.3

SC 2.2 Is the wetland unit you are rating listed on the DNR database as having a High Conservation Value? YES = Category I NO = not a WHCV

SC 2.3 Is the wetland unit being rated in a Section/Township/Range that contains a Natural Heritage wetland?

YES - contact WHP/DNR and go to SC 2.4
NO = not a WHCV

SC 2.4 Has DNR identified the wetland within the S/T/R as a wetland with High Conservation value and is listed on their web site?

YES = Category I
NO = not an WHCV

SC 4.0 Bogs and Calcareous Fens

Does the wetland unit (or any part of the wetland unit) meet both the criteria for bogs 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 unit have organic soil horizons (i.e. layers of organic soil), either peats or mucks, that compose 16 inches or more of the first 32 inches of the soil profile? (See Appendix C for a field key to identify organic soils).

Yes - go to SC 4.2
No - go to SC 4.3

SC 4.2 Does an area within the unit have organic soils, either peats or mucks that are less than 16 inches 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 unit 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" 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, Englemann's 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 question SC 4.5

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 Question 6

6. Do the species listed in Table 6 comprise at least 10% of the total plant cover an area of peats and mucks, AND one of the two following conditions is met:

- Marl deposits (calcium carbonate (CaCO3) precipitate) occur on the soil surface or plant stems
- The pH of free water ≥ 6.8 AND electrical conductivity ≥ 200 uS/cm at multiple locations within the wetland

Yes - Is a Category I calcareous fen
No - Is not a calcareous fen

Cat. I

Wetland name or number

B

SC 5.0 Forested Wetlands Does the wetland unit 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 a forested class is present in question H 1.1) • 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 acre of trees (even in wetlands smaller than 2.5 acres) 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)	
SC 5.1 Does the wetland unit 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	Cat. I
SC 5.2 Does the unit 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	Cat. I
SC 5.3 Does the wetland unit have areas 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 5.5	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	Cat. II
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 p.1	NA

Wetland name or number

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>)

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

- ___ **Aspen Stands:** Pure or mixed stands of aspen greater than 0.4 ha (1 acre).
- ___ **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 p. 152).
- ___ **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 25 trees/ha (10 trees/acre) that are > 53 cm (21 in) dbh, and 2.5-7.5 snags/ha (1 - 3 snags/acre) that are > 30-35 cm (12-14 in) 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. **Major forests:** Stands with average diameters exceeding 53 cm (21 in) 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 Oaks:** Woodlands 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).
- ___ **Aliparian:** 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, reuss, 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 7.6 m (25 ft) high and occurring below 5000 ft.
- ___ **Talus:** Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), 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 > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) 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 needlegrass (*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 DETERMINATION DATA FORM - Arid West Region

Project/Site: Schmitt City/County: K. Hites Sampling Date: 10-4-21
 Applicant/Owner: Ed Semell State: WA Sampling Point: DP#1
 Investigator(s): Ed Semell Section, Township, Range: S 32 T 18 R 17
 Landform (hillside, 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? Yes ☒ No _____
 Are vegetation, soil, or hydrology naturally problematic? Yes ☒ No _____ (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 ☒ No ☒	Is the Sampled Area within a Wetland?	Yes ☒ No ☒
Hydric Soil Present?	Yes ☒ No ☒		
Wetland Hydrology Present?	Yes ☒ No ☒		
Remarks:	<u>- grazed, irrigated pasture</u>		

VEGETATION - Use scientific names of plants.

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

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (m)	Color (Munsell)	Texture	Remarks
0-10	10YR 3/1	cm	Clayey loam
10-16	10YR 3/1	cm	
16-20	10YR 3/1	cm	
20-24	10YR 3/1	cm	
24-28	10YR 3/1	cm	
28-32	10YR 3/1	cm	
32-36	10YR 3/1	cm	
36-40	10YR 3/1	cm	
40-44	10YR 3/1	cm	
44-48	10YR 3/1	cm	
48-52	10YR 3/1	cm	
52-56	10YR 3/1	cm	
56-60	10YR 3/1	cm	
60-64	10YR 3/1	cm	
64-68	10YR 3/1	cm	
68-72	10YR 3/1	cm	
72-76	10YR 3/1	cm	
76-80	10YR 3/1	cm	
80-84	10YR 3/1	cm	
84-88	10YR 3/1	cm	
88-92	10YR 3/1	cm	
92-96	10YR 3/1	cm	
96-100	10YR 3/1	cm	

Type: Co-Consolidation, Dr-Deposition, Rte-Reduced Matrix, CS-Covered or Coated Sand Grains, Location: PL-Pore Lining, M-Mark.

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

Historic (A1)	Sandy Redox (S6)	1 cm Muck (A9) (LRR C)
Black-Histic (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Loamy Mucky Mineral (F1)	Loamy Mucky Matrix (F2)	Reduced Ventic (F18)
Loamy Mucky Matrix (F2)	Depleted Matrix (F3)	Red Parent Material (F22)
Depleted Matrix (F3)	Depleted Dark Surface (F6)	Other (Explain in Remarks)
Depleted Dark Surface (F6)	Depleted Dark Surface (F7)	
Depleted Dark Surface (F7)	Redox Depressions (F8)	
Redox Depressions (F8)	Vernal Pools (F9)	
Vernal Pools (F9)		

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

Hydric Soil Present? Yes ☒ No ☒

HYDROLOGY

Wetland Hydrology Indicators:

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

Surface Water (A1)	Water Marks (B1) (Riverine)
High Water Table (A2)	Sediment Deposits (B2) (Riverine)
Water Marks (B1) (Nonriverine)	Drift Deposits (B3) (Riverine)
Sediment Deposits (B2) (Nonriverine)	Drainage Patterns (B10)
Drift Deposits (B3) (Nonriverine)	Dry-Season Water Table (C2)
Inundation Visible on Aerial Imagery (B7)	Crayfish Burrows (C3)
Water-Stained Leaves (B9)	Saturation Visible on Aerial Imagery (C6)
	Shallow Aquifer (D3)
	FAC-Neutral Test (D5)

Secondary Indicators (2 or more required)

Surface Water (A1)	Water Marks (B1) (Riverine)
High Water Table (A2)	Sediment Deposits (B2) (Riverine)
Water Marks (B1) (Nonriverine)	Drift Deposits (B3) (Riverine)
Sediment Deposits (B2) (Nonriverine)	Drainage Patterns (B10)
Drift Deposits (B3) (Nonriverine)	Dry-Season Water Table (C2)
Inundation Visible on Aerial Imagery (B7)	Crayfish Burrows (C3)
Water-Stained Leaves (B9)	Saturation Visible on Aerial Imagery (C6)
	Shallow Aquifer (D3)
	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): _____
Inundation Visible on Aerial Imagery (B7)	Yes ☒ No ☒	Depth (inches): _____
Water-Stained Leaves (B9)	Yes ☒ No ☒	Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No ☒

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

Remarks: no indication

WETLAND DETERMINATION DATA FORM - Add West Region

Project/Site: Schmitt City/County: K. Itasca Sampling Date: 10-4-21
 Applicant/Owner: Ed Sewell State: WA Sampling Point: DP#2
 Investigator(s): Ed Sewell Section, Township, Range: S 32 T 18 R 17
 Landform (hillslope, terrace, etc.): _____ Slope (%): _____
 Subregion (LRR): _____ Local relief (concave, convex, none): _____ Datum: _____
 Lat: _____ Long: _____ NMI classification: _____

Soil Map Unit Name: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation _____ or Hydrology _____ significantly disturbed? Yes ☒ No ☐
 Are Vegetation _____ 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 ☒ No ☐	As the Sampled Area	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	within a Wetland?	Yes ☒ No ☐
Wetland Hydrology Present?	Yes ☒ No ☐		

Remarks: - grazed, irrigated pasture

VEGETATION - Use scientific names of plants.

Area Stratum (Plot size: _____)	Abundance % Cover	Dominant Indicator Species?	Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
13. _____	_____	_____	_____
14. _____	_____	_____	_____
15. _____	_____	_____	_____
16. _____	_____	_____	_____
17. _____	_____	_____	_____
18. _____	_____	_____	_____
19. _____	_____	_____	_____
20. _____	_____	_____	_____
21. _____	_____	_____	_____
22. _____	_____	_____	_____
23. _____	_____	_____	_____
24. _____	_____	_____	_____
25. _____	_____	_____	_____
26. _____	_____	_____	_____
27. _____	_____	_____	_____
28. _____	_____	_____	_____
29. _____	_____	_____	_____
30. _____	_____	_____	_____
31. _____	_____	_____	_____
32. _____	_____	_____	_____
33. _____	_____	_____	_____
34. _____	_____	_____	_____
35. _____	_____	_____	_____
36. _____	_____	_____	_____
37. _____	_____	_____	_____
38. _____	_____	_____	_____
39. _____	_____	_____	_____
40. _____	_____	_____	_____
41. _____	_____	_____	_____
42. _____	_____	_____	_____
43. _____	_____	_____	_____
44. _____	_____	_____	_____
45. _____	_____	_____	_____
46. _____	_____	_____	_____
47. _____	_____	_____	_____
48. _____	_____	_____	_____
49. _____	_____	_____	_____
50. _____	_____	_____	_____
51. _____	_____	_____	_____
52. _____	_____	_____	_____
53. _____	_____	_____	_____
54. _____	_____	_____	_____
55. _____	_____	_____	_____
56. _____	_____	_____	_____
57. _____	_____	_____	_____
58. _____	_____	_____	_____
59. _____	_____	_____	_____
60. _____	_____	_____	_____
61. _____	_____	_____	_____
62. _____	_____	_____	_____
63. _____	_____	_____	_____
64. _____	_____	_____	_____
65. _____	_____	_____	_____
66. _____	_____	_____	_____
67. _____	_____	_____	_____
68. _____	_____	_____	_____
69. _____	_____	_____	_____
70. _____	_____	_____	_____
71. _____	_____	_____	_____
72. _____	_____	_____	_____
73. _____	_____	_____	_____
74. _____	_____	_____	_____
75. _____	_____	_____	_____
76. _____	_____	_____	_____
77. _____	_____	_____	_____
78. _____	_____	_____	_____
79. _____	_____	_____	_____
80. _____	_____	_____	_____
81. _____	_____	_____	_____
82. _____	_____	_____	_____
83. _____	_____	_____	_____
84. _____	_____	_____	_____
85. _____	_____	_____	_____
86. _____	_____	_____	_____
87. _____	_____	_____	_____
88. _____	_____	_____	_____
89. _____	_____	_____	_____
90. _____	_____	_____	_____
91. _____	_____	_____	_____
92. _____	_____	_____	_____
93. _____	_____	_____	_____
94. _____	_____	_____	_____
95. _____	_____	_____	_____
96. _____	_____	_____	_____
97. _____	_____	_____	_____
98. _____	_____	_____	_____
99. _____	_____	_____	_____
100. _____	_____	_____	_____
101. _____	_____	_____	_____
102. _____	_____	_____	_____
103. _____	_____	_____	_____
104. _____	_____	_____	_____
105. _____	_____	_____	_____
106. _____	_____	_____	_____
107. _____	_____	_____	_____
108. _____	_____	_____	_____
109. _____	_____	_____	_____
110. _____	_____	_____	_____
111. _____	_____	_____	_____
112. _____	_____	_____	_____
113. _____	_____	_____	_____
114. _____	_____	_____	_____
115. _____	_____	_____	_____
116. _____	_____	_____	_____
117. _____	_____	_____	_____
118. _____	_____	_____	_____
119. _____	_____	_____	_____
120. _____	_____	_____	_____
121. _____	_____	_____	_____
122. _____	_____	_____	_____
123. _____	_____	_____	_____
124. _____	_____	_____	_____
125. _____	_____	_____	_____
126. _____	_____	_____	_____
127. _____	_____	_____	_____
128. _____	_____	_____	_____
129. _____	_____	_____	_____
130. _____	_____	_____	_____
131. _____	_____	_____	_____
132. _____	_____	_____	_____
133. _____	_____	_____	_____
134. _____	_____	_____	_____
135. _____	_____	_____	_____
136. _____	_____	_____	_____
137. _____	_____	_____	_____
138. _____	_____	_____	_____
139. _____	_____	_____	_____
140. _____	_____	_____	_____
141. _____	_____	_____	_____
142. _____	_____	_____	_____
143. _____	_____	_____	_____
144. _____	_____	_____	_____
145. _____	_____	_____	_____
146. _____	_____	_____	_____
147. _____	_____	_____	_____
148. _____	_____	_____	_____
149. _____	_____	_____	_____
150. _____	_____	_____	_____
151. _____	_____	_____	_____
152. _____	_____	_____	_____
153. _____	_____	_____	_____
154. _____	_____	_____	_____
155. _____	_____	_____	_____
156. _____	_____	_____	_____
157. _____	_____	_____	_____
158. _____	_____	_____	_____
159. _____	_____	_____	_____
160. _____	_____	_____	_____
161. _____	_____	_____	_____
162. _____	_____	_____	_____
163. _____	_____	_____	_____
164. _____	_____	_____	_____
165. _____	_____	_____	_____
166. _____	_____	_____	_____
167. _____	_____	_____	_____
168. _____	_____	_____	_____
169. _____	_____	_____	_____
170. _____	_____	_____	_____
171. _____	_____	_____	_____
172. _____	_____	_____	_____
173. _____	_____	_____	_____
174. _____	_____	_____	_____
175. _____	_____	_____	_____
176. _____	_____	_____	_____
177. _____	_____	_____	_____
178. _____	_____	_____	_____
179. _____	_____	_____	_____
180. _____	_____	_____	_____
181. _____	_____	_____	_____
182. _____	_____	_____	_____
183. _____	_____	_____	_____
184. _____	_____	_____	_____
185. _____	_____	_____	_____
186. _____	_____	_____	_____
187. _____	_____	_____	_____
188. _____	_____	_____	_____
189. _____	_____	_____	_____
190. _____	_____	_____	_____
191. _____	_____	_____	_____
192. _____	_____	_____	_____
193. _____	_____	_____	_____
194. _____	_____	_____	_____
195. _____	_____	_____	_____
196. _____	_____	_____	_____
197. _____	_____	_____	_____
198. _____	_____	_____	_____
199. _____	_____	_____	_____
200. _____	_____	_____	_____
201. _____	_____	_____	_____
202. _____	_____	_____	_____
203. _____	_____	_____	_____
204. _____	_____	_____	_____
205. _____	_____	_____	_____
206. _____	_____	_____	_____
207. _____	_____	_____	_____
208. _____	_____	_____	_____
209. _____	_____	_____	_____
210. _____	_____	_____	_____
211. _____	_____	_____	_____
212. _____	_____	_____	_____
213. _____	_____	_____	_____
214. _____	_____	_____	_____
215. _____	_____	_____	_____
216. _____	_____	_____	_____
217. _____	_____	_____	_____
218. _____	_____	_____	_____
219. _____	_____	_____	_____
220. _____	_____	_____	_____
221. _____	_____	_____	_____
222. _____	_____	_____	_____
223. _____	_____	_____	_____
224. _____	_____	_____	_____
225. _____	_____	_____	_____
226. _____	_____	_____	_____
227. _____	_____	_____	_____
228. _____	_____	_____	_____
229. _____	_____	_____	_____
230. _____	_____	_____	_____
231. _____	_____	_____	_____
232. _____	_____	_____	_____
233. _____	_____	_____	_____
234. _____	_____	_____	_____
235. _____	_____	_____	_____
236. _____	_____	_____	_____
237. _____	_____	_____	_____
238. _____	_____	_____	_____
239. _____	_____	_____	_____
240. _____	_____	_____	_____
241. _____	_____	_____	_____
242. _____	_____	_____	_____
243. _____	_____	_____	_____
244. _____	_____	_____	_____
245. _____	_____	_____	_____
246. _____	_____	_____	_____
247. _____	_____	_____	_____
248. _____	_____	_____	_____
249. _____	_____	_____	_____
250. _____	_____	_____	_____
251. _____	_____	_____	_____
252. _____	_____	_____	_____
253. _____	_____	_____	_____
254. _____	_____	_____	_____
255. _____	_____	_____	_____
256. _____	_____	_____	_____
257. _____	_____	_____	_____
258. _____	_____	_____	_____
259. _____	_____	_____	_____
260. _____	_____	_____	_____
261. _____	_____	_____	_____
262. _____	_____	_____	_____
263. _____	_____	_____	_____
264. _____	_____	_____	_____
265. _____	_____	_____	_____
266. _____	_____	_____	_____
267. _____	_____	_____	_____
268. _____	_____	_____	_____
269. _____	_____	_____	_____
270. _____	_____	_____	_____
271. _____	_____	_____	_____
272. _____	_____	_____	_____
273. _____	_____	_____	_____
274. _____	_____	_____	_____
275. _____	_____	_____	_____
276. _____	_____	_____	_____
277. _____	_____	_____	_____
278. _____	_____	_____	_____
279. _____	_____	_____	_____
280. _____	_____	_____	_____
281. _____	_____	_____	_____
282. _____	_____	_____	_____
283. _____	_____	_____	_____
284. _____	_____	_____	_____
285. _____	_____	_____	_____
286. _____	_____	_____	_____
287. _____	_____	_____	_____
288. _____	_____	_____	_____
289. _____	_____	_____	_____
290. _____	_____	_____	_____
291. _____	_____	_____	_____
292. _____	_____	_____	_____
293. _____	_____	_____	_____
294. _____	_____	_____	_____
295. _____	_____	_____	_____
296. _____	_____	_____	_____
297. _____	_____	_____	_____
298. _____	_____		

Project Site: Schmidt City/County: K. Hibbs Sampling Date: 10-4-21
 Applicant/Owner: _____ State: WA Sampling Point: DP03
 Investigator(s): Ed Smith Section, Township, Range: _____ Slope (%): _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Datum: _____
 Lat: _____ Long: _____
 Subregion (LRR): _____
 Soil Map Unit Name: _____ NW1 description: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Yes ☐ No ☒ (If needed, explain answers in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? Yes ☐ No ☒ (If needed, explain answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒		
Wetland Hydrology Present?	Yes ☐ No ☐		
Remarks: - grazed, irrigated pasture			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Abundant Dominant Indicator Species?	Abundant Dominant Indicator Species?	Dominance Index Worksheet:
1. _____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (AB)
4. _____	_____	_____	
Savanna/Shrub Stratum (Plot size: _____)	_____	_____	
1. _____	_____	_____	Prevalence Index Worksheet:
2. _____	_____	_____	Total % Cover of: _____
3. _____	_____	_____	OBL species x1 = _____
4. _____	_____	_____	FACW species x2 = _____
5. _____	_____	_____	FAC species x3 = _____
6. _____	_____	_____	FACU species x4 = _____
7. _____	_____	_____	UPL species x5 = _____
8. _____	_____	_____	Column Totals: _____ (A)
Herb Stratum (Plot size: _____)	_____	_____	Prevalence Index = B/A = _____
1. _____	_____	_____	Hydrophytic Vegetation Indicators:
2. _____	_____	_____	Dominance Test is > 60% _____
3. _____	_____	_____	Prevalence Index is ≤ 3.0 _____
4. _____	_____	_____	Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet) _____
5. _____	_____	_____	Problematic Hydrophytic Vegetation* (Explain) _____
6. _____	_____	_____	
7. _____	_____	_____	
8. _____	_____	_____	
Woody Vine Stratum (Plot size: _____)	_____	_____	
1. _____	_____	_____	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	
% Bare Ground in Herb Stratum _____	% Cover of Biotic Chart _____		Hydrophytic Vegetation Present? Yes _____ No _____
Remarks: _____			

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HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 of more required)	
Primary Indicators (Indication of site resulted; check at that axis)		Water Marks (B1) (Riveline)	
Surface Water (A1)	Soil Crust (B11)	Sediment Deposits (B2) (Riveline)	
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riveline)	
Water Table (A3)	Aquatic Invertebrates (B13)	Drainage Pediments (B10)	
Water Marks (B1) (Nonriveline)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Tables (C2)	
Sediment Deposits (B2) (Nonriveline)	Dissolved Phosphorus along Living Roots (C3)	Crayfish Burrows (C3)	
Drift Deposits (B3) (Nonriveline)	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)	
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Soils (C5)	Shallow Aquifers (C3)	
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)	
Water-Stained Leaves (B8)	Other (Explain in Remarks)		
Field Observations:		Wetland Hydrology Present? Yes _____ No _____	
Surface Water Present?	Yes _____ No _____		
Water Table Present?	Yes _____ No _____		
Saturation Present?	Yes _____ No _____		
(Includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Schult City/County: Kittitas Sampling Date: 10-4-21
 Applicant/Owner: EL Semel State: WA Sampling Point: D#4
 Investigator(s): 532 T18 R17 Section, Township, Range: 532 T18 R17
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Let: _____ 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/hydrology significantly disturbed? Yes ☒ No _____
 Are vegetation/soil/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 ☒ No _____
 Hydric Soil Present? Yes ☒ No _____
 Wetland Hydrology Present? Yes ☒ No _____
 Remarks: - grazed, irrigated pasture

VEGETATION - Use scientific names of plants.

1. Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status?
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
= Total Cover _____			
6. Herb Stratum (Plot size: _____)	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
= Total Cover _____			
11. Woody Vine Stratum (Plot size: _____)	_____	_____	_____
12. _____	_____	_____	_____
= Total Cover _____			
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____			
Remarks: _____			

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
 Depth (inches): 16 Matrix: 10R3L3 Color (moist): _____ Color (dry): _____ Type: CUML Location: PL-Pore Lining M-Value: _____
 Type: C-Concentration D-Distillation RM-Reduced Matrix, CS-Covered or Coated Sand Grains.
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
 Histosol (A1) _____ Sandy Redox (S8) _____
 Nitric Epilith (A2) _____ Striped Matrix (S9) _____
 Black Muck (A3) _____ Loamy Mucky Mineral (F1) _____
 Hydrogen Sulfide (A4) _____ Loamy Clayed Matrix (F2) _____
 Stratified Layers (A5) (LRR C) _____ Depleted Matrix (F3) _____
 1 cm Muck (A6) (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 Clayed Matrix (S4) _____
 Reductive Layer (if present): _____
 Type: _____
 Depth (inches): _____
 Remarks: _____
 Hydric Soil Present? Yes ☒ No _____

HYDROLOGY

Wetland Hydrology Indicators:
 Primary Indicators (Minimum of one required; check all that apply)
 Surface Water (A1) _____ Salt Crust (B11) _____
 High Water Table (A2) _____ Biotic Crust (B12) _____
 Saturation (A3) _____ Aquatic Invertebrates (B13) _____
 Water Marks (B1) (Nonriverine) _____ Hydrogen Sulfide Odor (C1) _____
 Sediment Deposits (B2) (Nonriverine) _____ Oxidized Rhizospheres along Living Roots (C3) _____
 Drift Deposits (B3) (Nonriverine) _____ Presence of Reduced Iron (C4) _____
 Surface Soil Cracks (B6) _____ Recent Iron Reduction in Tilled Soils (C6) _____
 Inundation Visible on Aerial Imagery (B7) _____ Thin Muck Surface (C7) _____
 Water-Stained Leaves (B9) _____ Other (Explain in Remarks) _____
 Field Observations:
 Surface Water Present? Yes ☒ No _____ Depth (inches): _____
 Water Table Present? Yes ☒ No _____ Depth (inches): _____
 Saturation Present? Yes ☒ No _____ Depth (inches): _____
 Includes capillary fringe? _____
 Describe Recorded Data (stream gauge, monitoring well, water photo, previous inspections), if available:
 Remarks: _____
 Wetland Hydrology Present? Yes ☒ No _____

Project/State: Schultz City/County: K. Hanks Sampling Date: 10-4-21
 Applicant/Owner: _____ State: WA Sampling Point: DP#5
 Invesigator(s): _____ Section, Township, Range: S 3 2 T 10 R 17
 Landform (hilltop, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Latt: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NW1 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? Yes ☒ No ☐

Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes _____ No ☒	Is the Sampled Area within a Wetland?	Yes _____ No ☒
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No _____		
Remarks: <i>- grazed, irrigated pasture</i>			

Top Stratum (Plot size: _____)	Absolute % Cover	Dominant Indicator Species?	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
1. _____	_____	_____	(A) _____
2. _____	_____	_____	(B) _____
3. _____	_____	_____	
4. _____	_____	_____	
Seedling/Shrub Stratum (Plot size: _____)	_____ = Total Cover	_____	(AB) _____

Prevalence Index worksheet:					
	Total % Covered:	Multiplic by:			
1.		OBL species	x1 =		
2.		FACW species	x2 =		
3.		PAC species	x3 =		
4.		FAGU species	x4 =		
5.		UPL species	x5 =		
	= Total Cover				(B)
Habitat Structure	Forest edge pasture boundary				
1.	<i>Relic</i>	<i>FAC</i>			(A)

[illegible]

Woods Vine Stratum (Plot size: _____)	
1. _____	
2. _____	
% Bare Ground in Herb Stratum _____	% Cover of Bulbs Crust _____
Remarks:	
Hydrophytic Vegetation Present? Yes ___ No ___	
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	

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Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (feet)	Mixt. Color (light)	% <i>d.s. fine</i>	Redox Features Color (metal)	Iron % lost	Turbid.	Remarks	
3							
16		<i>dyk 9/13</i>	<i>Fine s. fine bed</i>			<i>coloring line</i>	

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^aIndicators 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:	

Wellhead Hydrogeologic Investigations:	
Primary Indicators (Indication of non required check all that apply)	
Surface Water (A1)	Salt Crust (B11)
High Water Table (A2)	Biotic Crust (B12)
Saturation (A3)	Aquatic Invertebrates (B13)
Water Marks (B1) (Non-Invasive)	Hydrogen Sulfide Odor (C1)
Sediment Deposits (B2) (Non-Invasive)	Outcrop Rhizospheres along Living Roots (C3)
Drift Deposits (B3) (Non-Invasive)	Presence of Reduced Iron (C4)
Surface Soil Cracks (B8)	Recent Iron Reduction in Tilled Soils (C5)
Underflow Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)
Water-Saturated Larvae (B6)	Other (Explain in Remarks)

Secondary Indicators (2 or more required)	
Water Marks (B1) (Invasive)	
Sediment Deposits (B2) (Invasive)	
Drift Deposits (B3) (Invasive)	
Drainage Patterns (B10)	
Dry-Season Water Table (C2)	
Crayfish Burrows (C8)	
Saturation Visible on Aerial Imagery (C9)	
Shallow Aquifer (D3)	
FAC-Neutral Test (D5)	

Field Observations:		Wetland Hydrology Present?		Yes	No
Surface Water Present?	Yes ☐ No ☒	Soil (inches):	_____		
Water Table Present?	Yes ☐ No ☒	Depth (inches):	_____		
Saturation Present?	Yes ☐ No ☒	Depth (inches):	_____		
[Include any other data]					

Describe Recorded Data (primary gauges, monitoring wet, aerial photos, previous inspections), if available:	Remarks:

Arid West - Version 2.0

Project/Site: Schmidt City/Country: K. Tribes Sampling Date: 10-4-21
 Applicant/Owner: _____ State: WA Sampling Point: DP46
 Investigator(s): Ed Schmidt Section, Township, Range: S 32 T 18 R 17
 Landform (hillslope, terrace, etc.): _____ Local relief (convex, concave, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 NWRI classification: _____

Soil Map Unit Name: _____ NW1 classification: _____

Are climatic / hydrologic conditions on this site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)

Are "Normal Circumstances" present? Yes _____ No _____ (If needed, explain any answers in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Yes _____ No _____

Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? Yes _____ No _____

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

Is the Sampled Area within a Protected Area?	
Yes	No
☒	☐
☐	☐
☐	☐
☐	☐

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)		Dominance Test worksheet	
Absolute % Cover	Dominance Indicator Species?	Number of Dominant Species That Are OBL, FACW, or FAC:	(A) _____
1. _____	_____	_____	2 _____
2. _____	_____	_____	(B) _____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
= Total Cover _____		Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (AB) _____	
Shrub/Strub Stratum (Plot size: _____)		Prevalence Index worksheet	
Absolute % Cover	Dominance Indicator Species?	Total % Cover of:	Multiply by:
1. _____	_____	OBL species _____	x1 = _____
2. _____	_____	FACW species _____	x2 = _____
3. _____	_____	FAC species _____	x3 = _____
4. _____	_____	FACW species _____	x4 = _____
5. _____	_____	UPL species _____	x5 = _____
= Total Cover _____		Column Totals: _____	(A) _____ (B) _____
Herb Stratum (Plot size: _____)		Prevalence Index = S/A = _____	
1. <u>Carex</u>	<u>50</u>	Hydrophytic Vegetation Indicators: _____	
2. <u>Festuca</u>	<u>50</u>	_____ Dominance Test is >50% _____	
3. _____	_____	_____ Prevalence Index is >3.0' _____	
4. _____	_____	_____ Morphological Adaptations (Provide supporting data in Remarks on a separate sheet) _____	
5. _____	_____	_____ Problematic Hydrophytic Vegetation? (Explain) _____	
= Total Cover _____		_____ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or prograde.	
Woody Vine Stratum (Plot size: _____)		Hydrophytic Vegetation Present?	
1. _____	_____	Yes _____ No _____	
2. _____	_____	_____	
= Total Cover _____		_____	
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____	

SOIL

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HYDROLOGY

Wellhead Hydrology Indicators:		Secondary Indicators (2 or more indicated):	
Estimate Indicators (Indication of area indicated; check all that apply)			
___ Surface Water (A1)	___ Salt Crust (B1)	___ 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 Living Roots (C3)	___ Dry-Season Water Table (C2)	
___ Drift Deposits (B3) (Nonriverine)	___ Presence of Reduced Iron (C4)	___ Crayfish Burrows (C8)	
___ Surface Soil Cracks (B6)	___ Recent Iron Reduction in Tilled Soils (C5)	___ Saturation (B11) on Aerial Imagery (C9)	
___ Inundation Visible on Aerial Imagery (B7)	___ Thin Muck Surface (C7)	___ Shallow Aquifers (C3)	
___ Water-Stained Leaves (B8)	___ Other (Explain in Remarks)	___ FAC-Neutral Test (C6)	
Field Observations:			
___ Surface Water Present?	Yes ___ No ___		
___ Water Table Present?	Yes ___ No ___		
___ Saturation Present?	Yes ___ No ___		
(Indicates auxiliary things)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:		Wetland Hydrology Present? Yes ___ No ___	

Project/Site: Schmitt City/County: Kittitas Sampling Date: 10-4-21
 Applicant/Owner: _____ State: WA Sampling Point: DP#8
 Investigator(s): Ed Schmitt Section, Township, Range: S32 T18 R17
 Landform (plateau, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 NW1 classification: _____

Soil Map Unit Name: _____ NPI Classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are 'Normal Chromistaes' present? Yes ☒ No ☐ (If needed, explain any answers in Remarks.)

Are Vegetation _____ Soil _____ of Hydrology _____ significantly disturbed? _____

Are Hydrology _____ Soil _____ naturally problematic? _____

Hydrolytic Vegetation Present?	Yes	No	Is the Sampled Area within a Wetland?	
Hydric Soil Present?	Yes	No	Yes	No
Wetland Hydrology Present?	Yes	No		
Remarks: <i>no grazed, irrigated pasture</i>				

Tree Stratum (Plot size: _____)		Dominant Indicator Species?		Dominance Test worksheet:	
1.	2.	Absolute % Cover	Relative % Cover	Number of Dominant Species	That Are OBL, FACW, or FAC:
1.	_____	_____	_____	_____	(A) _____
2.	_____	_____	_____	_____	(B) _____
3.	_____	_____	_____	_____	(AB) _____
4.	_____	_____	_____	_____	_____
Shrub/Strub Stratum (Plot size: _____)		= Total Cover		Percent of Dominant Species Spécies Across All Strata: _____	
1.	_____	_____	_____	Total % Cover of: _____	
2.	_____	_____	_____	OBL species x1 = _____	
3.	_____	_____	_____	FACW species x2 = _____	
4.	_____	_____	_____	FAC species x3 = _____	
5.	_____	_____	_____	FACU species x4 = _____	
Herb Stratum (Plot size: _____)		= Total Cover		UPL species x5 = _____	
1.	_____	_____	_____	Column Totals: (A) _____ (B) _____	
2.	_____	_____	_____	Prevalence Index = B/A = _____	
3.	_____	_____	_____	Hydrophytic Vegetation Indicators:	
4.	_____	_____	_____	— Dominance Test is >50%	
5.	_____	_____	_____	— Prevalence Index is >3.0'	
6.	_____	_____	_____	— Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)	
7.	_____	_____	_____	— Problematic Hydrophytic Vegetation' (Explain)	
8.	_____	_____	_____	_____	
Woody Vine Stratum (Plot size: _____)		= Total Cover		'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1.	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No _____	
2.	_____	_____	_____	_____	
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		Remarks:	

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Arid West - Version 2.0

[illegible]

Wetland Hydrology Indicators:		Field Observations:	
Primary Indicators (Minimum of one required; check all that apply)			
____ Surface Water (A1)	____ Soil Crust (B11)	____	____
____ High Water Table (A2)	____ Biotic Crust (B12)	____ Depth (inches):	____
____ Saturation (A3)	____ Aquatic Invertebrates (B13)	____	____
____ Water Marks (B1) (Noninvasive)	____ Hydrogen Sulfide Odor (C1)	____ Depth (inches):	____
____ Sediment Deposits (B2) (Noninvasive)	____ Oxidized Rhizospheres along Living Roots (C3)	____	____
____ Drift Deposits (B3) (Noninvasive)	____ Presence of Reduced Iron (C4)	____	____
____ Surface Soil Cracks (B6)	____ Recent Iron Reduction in Tilled Soils (C5)	____	____
____ Inundation Visible on Aerial Imagery (B7)	____ Thin Muck Surface (C7)	____	____
____ Water-Stained Leaves (B8)	____ Other (Explain in Remarks)	____	____
		Yes	No
Water Table Present?		Yes	No
Saturation Present?		Yes	No
(Includes capillary fringe)			
Describe Recounted Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Schult City/County: Kittitas Sampling Date: 10-4-21
 Applicant/Owner: BL Semel State: WA Sampling Point: DA 29 + 10
 Investigator(s): 532 T 10 R 17 Section, Township, Range: 532 T 10 R 17
 Landform (hilltops, terraces, etc.): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on this site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are vegetation _____ or hydrology _____ significantly disturbed? Yes ☒ No _____
 Are vegetation _____ 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 ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks:	<u>~ grazed, irrigated pasture</u>		

VEGETATION - Use scientific names of plants.

1. Taxa Stratum (Plot size: _____)	Abundance	Dominant Indicator	% Cover	Status
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____
7. _____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____
16. _____	_____	_____	_____	_____
17. _____	_____	_____	_____	_____
18. _____	_____	_____	_____	_____
19. _____	_____	_____	_____	_____
20. _____	_____	_____	_____	_____
21. _____	_____	_____	_____	_____
22. _____	_____	_____	_____	_____
23. _____	_____	_____	_____	_____
24. _____	_____	_____	_____	_____
25. _____	_____	_____	_____	_____
26. _____	_____	_____	_____	_____
27. _____	_____	_____	_____	_____
28. _____	_____	_____	_____	_____
29. _____	_____	_____	_____	_____
30. _____	_____	_____	_____	_____
31. _____	_____	_____	_____	_____
32. _____	_____	_____	_____	_____
33. _____	_____	_____	_____	_____
34. _____	_____	_____	_____	_____
35. _____	_____	_____	_____	_____
36. _____	_____	_____	_____	_____
37. _____	_____	_____	_____	_____
38. _____	_____	_____	_____	_____
39. _____	_____	_____	_____	_____
40. _____	_____	_____	_____	_____
41. _____	_____	_____	_____	_____
42. _____	_____	_____	_____	_____
43. _____	_____	_____	_____	_____
44. _____	_____	_____	_____	_____
45. _____	_____	_____	_____	_____
46. _____	_____	_____	_____	_____
47. _____	_____	_____	_____	_____
48. _____	_____	_____	_____	_____
49. _____	_____	_____	_____	_____
50. _____	_____	_____	_____	_____
51. _____	_____	_____	_____	_____
52. _____	_____	_____	_____	_____
53. _____	_____	_____	_____	_____
54. _____	_____	_____	_____	_____
55. _____	_____	_____	_____	_____
56. _____	_____	_____	_____	_____
57. _____	_____	_____	_____	_____
58. _____	_____	_____	_____	_____
59. _____	_____	_____	_____	_____
60. _____	_____	_____	_____	_____
61. _____	_____	_____	_____	_____
62. _____	_____	_____	_____	_____
63. _____	_____	_____	_____	_____
64. _____	_____	_____	_____	_____
65. _____	_____	_____	_____	_____
66. _____	_____	_____	_____	_____
67. _____	_____	_____	_____	_____
68. _____	_____	_____	_____	_____
69. _____	_____	_____	_____	_____
70. _____	_____	_____	_____	_____
71. _____	_____	_____	_____	_____
72. _____	_____	_____	_____	_____
73. _____	_____	_____	_____	_____
74. _____	_____	_____	_____	_____
75. _____	_____	_____	_____	_____
76. _____	_____	_____	_____	_____
77. _____	_____	_____	_____	_____
78. _____	_____	_____	_____	_____
79. _____	_____	_____	_____	_____
80. _____	_____	_____	_____	_____
81. _____	_____	_____	_____	_____
82. _____	_____	_____	_____	_____
83. _____	_____	_____	_____	_____
84. _____	_____	_____	_____	_____
85. _____	_____	_____	_____	_____
86. _____	_____	_____	_____	_____
87. _____	_____	_____	_____	_____
88. _____	_____	_____	_____	_____
89. _____	_____	_____	_____	_____
90. _____	_____	_____	_____	_____
91. _____	_____	_____	_____	_____
92. _____	_____	_____	_____	_____
93. _____	_____	_____	_____	_____
94. _____	_____	_____	_____	_____
95. _____	_____	_____	_____	_____
96. _____	_____	_____	_____	_____
97. _____	_____	_____	_____	_____
98. _____	_____	_____	_____	_____
99. _____	_____	_____	_____	_____
100. _____	_____	_____	_____	_____
101. _____	_____	_____	_____	_____
102. _____	_____	_____	_____	_____
103. _____	_____	_____	_____	_____
104. _____	_____	_____	_____	_____
105. _____	_____	_____	_____	_____
106. _____	_____	_____	_____	_____
107. _____	_____	_____	_____	_____
108. _____	_____	_____	_____	_____
109. _____	_____	_____	_____	_____
110. _____	_____	_____	_____	_____
111. _____	_____	_____	_____	_____
112. _____	_____	_____	_____	_____
113. _____	_____	_____	_____	_____
114. _____	_____	_____	_____	_____
115. _____	_____	_____	_____	_____
116. _____	_____	_____	_____	_____
117. _____	_____	_____	_____	_____
118. _____	_____	_____	_____	_____
119. _____	_____	_____	_____	_____
120. _____	_____	_____	_____	_____
121. _____	_____	_____	_____	_____
122. _____	_____	_____	_____	_____
123. _____	_____	_____	_____	_____
124. _____	_____	_____	_____	_____
125. _____	_____	_____	_____	_____
126. _____	_____	_____	_____	_____
127. _____	_____	_____	_____	_____
128. _____	_____	_____	_____	_____
129. _____	_____	_____	_____	_____
130. _____	_____	_____	_____	_____
131. _____	_____	_____	_____	_____
132. _____	_____	_____	_____	_____
133. _____	_____	_____	_____	_____
134. _____	_____	_____	_____	_____
135. _____	_____	_____	_____	_____
136. _____	_____	_____	_____	_____
137. _____	_____	_____	_____	_____
138. _____	_____	_____	_____	_____
139. _____	_____	_____	_____	_____
140. _____	_____	_____	_____	_____
141. _____	_____	_____	_____	_____
142. _____	_____	_____	_____	_____
143. _____	_____	_____	_____	_____
144. _____	_____	_____	_____	_____
145. _____	_____	_____	_____	_____
146. _____	_____	_____	_____	_____
147. _____	_____	_____	_____	_____
148. _____	_____	_____	_____	_____
149. _____	_____	_____	_____	_____
150. _____	_____	_____	_____	_____
151. _____	_____	_____	_____	_____
152. _____	_____	_____	_____	_____
153. _____	_____	_____	_____	_____
154. _____	_____	_____	_____	_____
155. _____	_____	_____	_____	_____
156. _____	_____	_____	_____	_____
157. _____	_____	_____	_____	_____
158. _____	_____	_____	_____	_____
159. _____	_____	_____	_____	_____
160. _____	_____	_____	_____	_____
161. _____	_____	_____	_____	_____
162. _____	_____	_____	_____	_____
163. _____	_____	_____	_____	_____
164. _____	_____	_____	_____	_____
165. _____	_____	_____	_____	_____
166. _____	_____	_____	_____	_____
167. _____	_____	_____	_____	_____
168. _____	_____	_____	_____	_____
169. _____	_____	_____	_____	_____
170. _____	_____	_____	_____	_____
171. _____	_____	_____	_____	_____
172. _____	_____	_____	_____	_____
173. _____	_____	_____	_____	_____
174. _____	_____	_____	_____	_____
175. _____	_____	_____	_____	_____
176. _____	_____	_____	_____	_____
177. _____	_____	_____	_____	_____
178. _____	_____	_____	_____	_____
179. _____	_____	_____	_____	_____
180. _____	_____	_____	_____	_____
181. _____	_____	_____	_____	_____
182. _____	_____	_____	_____	_____
183. _____	_____	_____	_____	_____
184. _____	_____	_____	_____	_____
185. _____	_____	_____	_____	_____
186. _____	_____	_____	_____	_____
187. _____	_____	_____	_____	_____
188. _____	_____	_____	_____	_____
189. _____	_____	_____	_____	_____
190. _____	_____	_____	_____	_____
191. _____	_____	_____	_____	_____
192. _____	_____	_____	_____	_____
193. _____	_____	_____	_____	_____
194. _____	_____	_____	_____	_____
195. _____	_____	_____	_____	_____
196. _____	_____	_____	_____	_____
197. _____	_____	_____	_____	_____
198. _____	_____	_____	_____	_____
199. _____	_____	_____	_____	_____
200. _____	_____	_____	_____	_____
201. _____	_____	_____	_____	_____
202. _____	_____	_____	_____	_____
203. _____	_____	_____	_____	_____
204. _____	_____	_____	_____	_____
205. _____	_____	_____	_____	_____
206. _____	_____	_____	_____	_____
207. _____	_____	_____	_____	_____
208. _____	_____	_____	_____	_____
209. _____	_____	_____	_____	_____
210. _____	_____	_____	_____	_____
211. _____	_____	_____	_____	_____
212. _____	_____	_____	_____	_____
213. _____	_____	_____	_____	_____
214. _____	_____	_____	_____	_____
215. _____	_____	_____	_____	_____
216. _____	_____	_____	_____	_____
217. _____	_____	_____	_____	_____
218. _____	_____	_____	_____	_____
219. _____	_____	_____	_____	_____
220. _____	_____	_____	_____	_____
221. _____	_____	_____	_____	_____
222. _____	_____	_____	_____	_____
223. _____	_____	_____	_____	_____
224. _____	_____	_____	_____	_____
225. _____	_____	_____	_____	_____
226. _____	_____	_____	_____	_____
227. _____	_____	_____	_____	_____
228. _____	_____	_____	_____	_____
229. _____	_____	_____	_____	_____
230. _____	_____	_____	_____	_____
231. _____	_____	_____	_____	_____
232. _____	_____	_____	_____	_____
233. _____	_____	_____	_____	_____
234. _____	_____	_____	_____	_____
235. _____	_____	_____	_____	_____
236. _____	_____	_____	_____	_____
237. _____	_____	_____	_____	_____
238. _____	_____	_____	_____	_____
239. _____	_____	_____	_____	_____
240. _____	_____	_____	_____	_____
241. _____	_____	_____	_____	_____
242. _____	_____	_____	_____	_____
243. _____	_____	_____	_____	_____
244. _____	_____	_____	_____	_____
245. _____	_____	_____	_____	_____
246. _____	_____	_____	_____	_____
247. _____	_____	_____	_____	_____
248. _____	_____	_____	_____	_____
249. _____	_____	_____	_____	_____
250. _____	_____	_____	_____	_____
251. _____	_____	_____	_____	_____
252. _____	_____	_____	_____	_____
253. _____	_____	_____	_____	_____
254. _____	_____	_____	_____	_____

low spot

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Schult City/County: Kittitas Sampling Date: 10-4-21
Applicant/Owner: BL Semml State: WA Sampling Point: DP#12
Investigator(s): BL Semml Section, Township, Range: S32 T18 R17
Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, ridge): _____ Slope (%): _____
Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NMI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are vegetation / hydrology significantly disturbed? Yes ☐ No ☒
Are vegetation / hydrology naturally problematic? (If needed, explain any errors in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydroic Soil Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☒ No ☐
Remarks: - grazed, irrigated pasture

VEGETATION - Use scientific names of plants.

Area	Stratum (Plot size)	Absolute Dominant Indicator % Cover	Dominant Species	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>2</u> (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (AB)
4.				Prevalence Index Worksheet
5.				Total % Cover of: <u>100%</u> (A)
6.				OBL species: <u>100%</u> x1 = <u>100%</u>
7.				FACW species: <u>0%</u> x2 = <u>0%</u>
8.				FAC species: <u>0%</u> x3 = <u>0%</u>
9.				PACU species: <u>0%</u> x4 = <u>0%</u>
10.				UPL species: <u>0%</u> x5 = <u>0%</u>
11.				Column Totals: <u>100%</u> (A)
12.				Prevalence Index = B/A = <u>1.00</u>
13.				Hydrophytic Vegetation Indicators:
14.				Upland Test is >60%: <u>Yes</u>
15.				Prevalence Index is >3.0: <u>Yes</u>
16.				Morphological Adaptations: (Provide supporting data in Remarks or on a separate sheet)
17.				Problematic Hydrophytic Vegetation: (Explain)
18.				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
19.				Hydrophytic Vegetation Present? <u>Yes</u>
20.				% Bare Ground in Herb Stratum: <u>0%</u> % Cover of Bulk Crust: <u>0%</u>

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth (approx): 10 Metic: 1042/2 Color (moist): 1042/2 Color (dry): 1042/2 Texture: clayey loam Remarks: _____
Type: C-Concentration, D-Disturbance, R-Reduced Matrix, CS-Covered or Coated Sand Grains, Location: PL-Pore Linings, M-Matrix, Indicators for Problematic Hydric Soils:
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
--- Histic (A1) --- Sandy Redox (B8)
--- Histic Epipedon (A2) --- Shredded Matrix (S8)
--- Black Histic (A3) --- Loamy Mucky Mineral (F1)
--- Hydrogen Sulfide (A4) --- Loamy Gleyed Matrix (F2)
--- Stratified Layers (A5) (LRR C) --- Depleted Matrix (F3)
--- 1 cm Muck (A6) (LRR D) --- Redox Dark Surface (F4)
--- Depleted Below Dark Surface (A11) --- Depleted Dark Surface (F7)
--- Thick Dark Surface (A12) --- Redox Depressions (F6)
--- Sandy Mucky Mineral (B1) --- Vernal Pools (F9)
--- Sandy Gleyed Matrix (B4)
--- Reductive Layer (if present):
Type: _____ Hydric Soil Present? Yes ☒ No ☐
Depth (inches): _____
Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (Minimum of one required; check all that apply):
--- Surface Water (A1) --- Salt Crust (B11)
--- High Water Table (A2) --- Acidic Crust (B12)
--- Saturation (A3) --- Aquatic Invertebrates (B13)
--- Water Marks (B1) (Nonhydric) --- Hydrogen Sulfide Odor (C1)
--- Sediment Deposits (B2) (Nonhydric) --- Outdated Rhizospheres along Living Roots (C4)
--- Drift Deposits (B3) (Nonhydric) --- Presence of Reduced Iron (C4)
--- Surface Soil Cracks (B4) --- Recent Iron Reduction in Tilled Soil (C6)
--- Inundation Visible on Aerial Imagery (B7) --- Thin Muck Surface (C7)
--- Water-Stained Leaves (B8) --- Other (Explain in Remarks)
Field Observations:
--- Surface Water Present? Yes ☒ No ☐ Depth (inches): _____
--- Water Table Present? Yes ☒ No ☐ Depth (inches): _____
--- Saturation Present? Yes ☒ No ☐ Depth (inches): _____
--- Includes saplings, shrubs
Describe Recorded Data (stream gauge, monitoring well, water photos, previous inspections), if available:
Remarks: _____

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US Army Corps of Engineers

Project/Site: Schmidt City/County: Kittitas Sampling Date: 10-7-21
 Applicant/Owner: _____ State: WA Sampling Point: DP#19
 Investigator(s): SCB Schmidt Station, Township, Range: S32 T18N R14E
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NW1 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 Conditions" present? Yes ☒ No _____
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒		
Wetland Hydrology Present?	Yes ☐ No ☐		
Remarks:	grazed irregular patch		

Tree Stratum (Plot size: _____)		Absolute Dominant Indicator % Cover, Species? Status		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	
1.	_____	_____	_____	(A)	1
2.	_____	_____	_____	(B)	1
3.	_____	_____	_____		
4.	_____	_____	_____		100
Sadden/Shrub Stratum (Plot size: _____)		= Total Cover		That Are OBL, FACW, or FAC:	
1.	_____	_____	_____	Prevalence Index worksheet:	
2.	_____	_____	_____	Total % Cover of: _____	
3.	_____	_____	_____	OBL species _____ x 1 = _____	
4.	_____	_____	_____	FACW species _____ x 2 = _____	
5.	_____	_____	_____	FAC species _____ x 3 = _____	
6.	_____	_____	_____	FACW species _____ x 4 = _____	
7.	_____	_____	_____	UPL species _____ x 5 = _____	
8.	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
Herb Stratum (Plot size: _____)		= Total Cover		Prevalence Index = B/A = _____	
1.	<i>Phlox preta</i>	100	FAC	Hydrophytic Vegetation Indicators:	
2.	_____	_____	_____	Dominance Test is >60% ☒	
3.	_____	_____	_____	Prevalence Index is >3.0' ☒	
4.	_____	_____	_____	Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)	
5.	_____	_____	_____	Problematic Hydrophytic Vegetation* (Explain)	
6.	_____	_____	_____	Indicators of hydro soil and wetland hydrology must be present, unless disturbed or problematic.	
7.	_____	_____	_____	Hydrophytic Vegetation Present? ☒	
8.	_____	_____	_____	Yes _____ No _____	
Woody Vine Stratum (Plot size: _____)		= Total Cover			
1.	_____	_____	_____		
2.	_____	_____	_____		
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____			
Remarks:					

[illegible]

HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	
Surface Water (A1)	Self-Crust (B11)
High Water Table (A2)	Biotic Crust (B12)
Saturation (A3)	Aquatic Invertebrates (B13)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roots (C3)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Soils (C5)
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)
Water-Stained Leaves (B8)	Other (Explain in Remarks)
Field Observations:	
Surface Water Present?	Yes ☒ No ☐ Depth (inches): _____
Water Table Present?	Yes ☒ No ☐ Depth (inches): _____
Saturation Present?	Yes ☒ No ☐ Depth (inches): _____
(Include capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

DP# 20 → 27
all the same

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Schmidt City/County: Kittitas Sampling Date: 10-7-21
Applicant/Owner: SW Schmitt State: WA Sampling Point: DP# 20
Investigator(s): SW Schmitt Section, Township, Range: S 32 T 18 N R 14 E
Landform (alluvial, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LRR): _____ Latitude: _____ Longitude: _____ Datum: _____
Soil Map Unit Name: _____ NW classification: _____
Are climate/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? Yes ☐ No ☒
Are vegetation, soil, or hydrology naturally problematic? Yes ☐ No ☒ (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 ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		

Remarks: grazed irregular patch

VEGETATION - Use scientific names of plants.

Zone Stratum	Plot size	Abundance % Cover	Dominant Indicator Species?	Status
1.				
2.				
3.				
4.				
Shrub/Strat. Stratum (Plot size: _____)				
1.				
2.				
3.				
4.				
5.				
Herb Stratum (Plot size: _____)				
1.				
2.				
3.				
4.				
5.				
6.				
Woody Vine Stratum (Plot size: _____)				
1.				
2.				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks: _____				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth (inches): 14 Matrix: clay 3/3 Color (moist): 5YR 3/3 Texture: clayey loam Remains: _____
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
Type: Clayey Location: Plu-Pore Unit, M-Matrix
Indicators for Problematic Hydric Soils:
1 cm Muck (A0) (LRR C) _____
2 cm Muck (A10) (LRR B) _____
Reduced Vents (F16) _____
Red Parent Material (TF2) _____
Other (Explain in Remarks) _____
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Present? Yes ☒ No ☐
Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one required; check all that apply):
Surface Water (A1) _____
High Water Table (A2) _____
Saturation (A3) _____
Water Marks (B1) (Nonfluviatile) _____
Sediment Deposits (B2) (Nonfluviatile) _____
Drift Deposits (B3) (Nonfluviatile) _____
Surface Soil Cracks (B6) _____
Inundation Visible on Aerial Imagery (B7) _____
Wetland Hydrology Present? Yes ☒ No ☐
Secondary Indicators (2 or more required):
Water Marks (B1) (fluviatile) _____
Sediment Deposits (B2) (fluviatile) _____
Drift Deposits (B3) (fluviatile) _____
Drainage Patterns (B10) _____
Dry-Season Water Table (C2) _____
Crayfish Burrows (C3) _____
Saturation Visible on Aerial Imagery (C6) _____
Shallow Aquifers (D3) _____
FAC-Neutral Test (D5) _____
Wetland Hydrology Present? Yes ☒ No ☐
Remarks: _____

12" from irr ditch

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/State: Schmidt City/County: Kittitas Sampling Date: 10-7-21
Investigator(s): SB State: WA Sampling Point: 700#28
Landform (topography, etc.): Scrub Section, Township, Range: S 32 T 18 N R 14 E
Subregion (LRR): _____ Local relief (concave, convex, none): _____ Slope (%): _____
Latitude: _____ Longitude: _____ Datum: _____
Soil Map Unit Name: _____ NW/1 classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
Are climatic / hydrologic conditions on the site significantly disturbed? Yes ☒ No _____
Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? Yes _____ No _____
Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach also map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No _____
Hydro Soil Present? Yes ☒ No _____
Wetland Hydrology Present? Yes ☒ No _____
Remarks: grazed irrigated pasture

VEGETATION - Use scientific names of plants.

Zone Stratum	Plot size	Abundance	Dominant Indicator	Number of Dominant Species	That Are OBL, FACW, or FAC
1.				2	(A)
2.				2	(B)
3.					(AB)
4.					
5.					
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97.					
98.					
99.					
100.					

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth (meters): 10 Matrix: 104312 Color (moist): 104312 Color (dry): 104312 Texture: sandy loam Remarks: 104312
Type: C-Concentration, D-Dissolution, R-Reduced Matrix, CS-Covered or Coated Sand Grains, Location: PL-Pore Linings, M-Matrix.
Hydro Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
--- Histic (A1) --- Sandy Matrix (S1)
--- Histic Epipedon (A2) --- Shredded Matrix (S2)
--- Black Muck (A3) --- Loamy Mucky Matrix (F1)
--- Hydrogen Sulfide (A4) --- Decomposed Matrix (F2)
--- Stratified Layers (A5) (LRR C) --- Redox Dark Surface (F3)
--- 1 cm Muck (A6) (LRR D) --- Disrupted Dark Surface (F4)
--- Disrupted Below Dark Surface (A11) --- Redox Dark Surface (F5)
--- Thick Dark Surface (A12) --- Redox Dark Surface (F6)
--- Sandy Mucky Matrix (S1) --- Vernal Pools (F8)
--- Sandy Gravel Matrix (S4) ---
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydro Soil Present? Yes ☒ No _____
Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one required; check all that apply):
--- Surface Water (A1) --- Set Crust (B11)
--- High Water Table (A2) --- Block Crust (B12)
--- Saturation (A3) --- Aquatic Invertebrates (B13)
--- Water Marks (B1) (Nonriverine) --- Hydrogen Sulfide Odor (C1)
--- Sediment Deposits (B2) (Nonriverine) --- Outdated Riprap/Spill along Living Roots (C3)
--- Drift Deposits (B3) (Nonriverine) --- Presence of Reduced Iron (C4)
--- Surface Soil Cracks (B5) --- Recent Iron Reduction in Tilled Soils (C5)
--- Inundation Visible on Aerial Imagery (B7) --- Thin Muck Surface (C7)
--- Water-Saturated Leaves (B9) --- Other (Explain in Remarks)
Field Observations:
--- Surface Water Present? Yes ☒ No _____ Depth (inches): _____
--- Water Table Present? Yes ☒ No _____ Depth (inches): _____
--- Saturation Present? Yes ☒ No _____ Depth (inches): _____
--- Includes capillary fringe? Yes ☒ No _____
Describe Recorded Data (green gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks: saturation at -18"

Project/State: Schmidt City/County: Kittitas Sampling Date: 10-7-21
 Applicant/Owner: _____ State: WA Sampling Point: DATE 29
 Investigator(s): Ed Schmidt Section, Township, Range: S 32 T 18 N R 14 E
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Lat: _____ Long: _____ Datum: _____
 Subregion (LRR): _____ NWI classification: _____
 Soil Map Unit Name: _____

Soil Map Unit Name _____ NW1 classification: _____

Are climate/hydrologic conditions on site typical for this year? Yes ☒ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____ or Hydrology _____ slightly disturbed? Yes _____ No _____

Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? Yes _____ No _____ (If needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present? Yes ☒ No ☐

Hydric Soil Present? Yes ☒ No ☐

Is the Sampled Area within a Wetland? Yes ☐ No ☒

Remarks: *cyrenoid irregularly prismatic*

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Indicator Species?	Status?	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
1. _____	_____	_____	_____	(A) _____
2. _____	_____	_____	_____	(B) _____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
_____ = Total Cover	_____	_____	_____	_____
Shrub/Short Stratum (Plot size: _____)				
1. _____	_____	_____	_____	(A) _____
2. _____	_____	_____	_____	(B) _____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____
_____ = Total Cover	_____	_____	_____	_____
Herb Stratum (Plot size: _____)				
1. _____	_____	_____	_____	(A) _____
2. _____	_____	_____	_____	(B) _____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____
_____ = Total Cover	_____	_____	_____	_____

Prevalence Index = B/A = _____

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
_____ = Total Cover

Woody Vine Scrubland (Plot size: _____)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Hydrophytic Vegetation Indicators:

— Dominance Test is >10%
— Prevalence Index is <3.0
— Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)
— Problematic Hydrophytic Vegetation† (Explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or anthropogenic

[illegible]

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Soil						Sampling Point
Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)						
Depth (inches)	Moisture		Redox Features		Tearing	Remarks
	Color (moist)	%	Color (moist)	%		
1-6	10YR 3/3				Cut by layer from	

[illegible]

Type	C#-Concentration	D#-Dispersion	R#-Reduced Matrix	C#S-Covered or Coated Sand Grains	λ_{c} -Location	Pt-Above Unlog	Mk-Below
Hydris Soil Indicators: (Applicable to all LURIs, unless otherwise noted)							
Hittosol (A1)	---	Sandy Redox (S0)	---	---	---	---	---
Hilic Epilodon (A2)	---	Stripped Matrix (S9)	---	---	---	1 cm Muck (A6) (LRR C)	---
Black Hitic (A3)	---	Loomy Nucky Mineral (F1)	---	---	---	2 cm Muck (A10) (LRR B)	---
Hydrogen Sulfide (A4)	---	Loomy Glyzed Matrix (F2)	---	---	---	Redoxed Vetric (F18)	---
Stratified Layers (A5) (LRR C)	---	Displaced Matrix (F3)	---	---	---	Red Parent Material (TF2)	---
1 cm Muck (A6) (LRR D)	---	Redox Dark Surface (F6)	---	---	---	Other (Explain in Remarks)	---
Displaced Below Dark Surface (A11)	---	Displaced Dark Surface (F7)	---	---	---	---	---
Thick Dark Surface (A12)	---	Radior Depressions (F8)	---	---	---	---	---
Sandy/Nucky Mineral (S1)	---	Vernal Pools (F9)	---	---	---	---	---
*Indicators of hydrophytic vegetation and wetland hydrology must be present.							

_____ Sandy Grayed Matrix (S4) Restrictive Layer (if present):		unless disturbed or problematic.	
Type: _____	Hydric Soil Present? Yes _____ No _____		
Depth (inches): _____	Remarks: _____		

Wetland Hydrology Indicators:	
Provide written indication of one result; check all that apply:	
_____ Surface Water (A1)	_____ Salt Crust (B11)
_____ High Water Table (A2)	_____ Biotic Crust (B12)
_____ Saturation (A3)	_____ Aquatic Invertebrates (B13)
_____ Water Marks (B1) (Noninvasive)	_____ Hydrogen Sulfide Odor (C1)
_____ Sediment Deposits (B2) (Noninvasive)	_____ Oxidized Rhizospheres along Living Roots (C3)
_____ Drift Deposits (B3) (Noninvasive)	_____ Presence of Reduced Iron (C4)
_____ Surface Soil Cracks (B6)	_____ Recent Iron Reduction in Tilled Soils (C6)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Thin Muck Surface (C7)
_____ Water-Spurred Leaves (B8)	_____ Other (Explain in Remarks)
Field Observations:	

Surface Water Present?		Depth (inches):	
Yes	No	Yes	No
Yes	No	Depth (inches):	
Yes	No	Depth (inches):	
Yes	No	Depth (inches):	
Yes	No	Depth (inches):	

Wetland Hydrology Present? Yes No

Describe Buried Pipe (stream, culvert, manhole, well, and/or other man-made structures). If available:

Includes casing, fringe

Remains:

02/11/2008 11:00 AM

Project/State: Schmidt City/County: K.H.Hans Sampling Date: 10-7-21
 Applicant/Owner: WA Sampling Point: DP#31
 Investigator(s): SCJ Section, Township, Range: S32 T18 N4 E
 Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Latitude: _____ Longitude: _____
 Soil Map Unit Name: _____
 Are climatic / hydrologic conditions on the site typical for this year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Yes ☒ No _____
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

	Yes	No	Yes	No
Hydrophytic Vegetation Present?	☒	☐		
Hydric Soil Present?	☒	☐		
Wetland Hydrology Present?	☒	☐		
Remarks:	open sand very good position			

Town	Stratum	Plot size:	Absolute % Cover	Dominant? Indicator	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:
1.	<i>Populus balsamifera</i>		40	FAC	(A) 2 (B) 2 (AB) 100%
2.					
3.					
4.				% Total Cover	
Sandbar/Shrub Stratum	(plot size: _____)				Prevalence Index worksheet: Total % Cover = OBL species x1 = FACW species x2 = FAC species x3 = FAGU species x4 = URT species x5 = Column Totals: (A) _____
1.	<i>Festuca arvensis</i>		60	FAC	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0' Morphological Adaptations (Provide supporting data in Remarks on a separate sheet) Problematic Hydrophytic Vegetation? (Explain) Indications of hydric soil and wetland hydrology must be present, unless disturbed or problematic. ✓ Hydrophytic Vegetation Present? Yes _____ No _____
2.					
3.					
4.					
5.					
6.					
7.					
8.					
Woody Vine Stratum	(plot size: _____)			% Total Cover	
1.					
2.					
% Bare Ground In Herb Stratum				% Cover of Biotic Crust	

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		☐ Yes	☒ No
Hydris Bell Present?			
Remarks:			

Wetland Hydrology Indicators:		Field Observations:	
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
____ Surface Water (A1)	____ Soil Crust (B11)	____ Water Marks (B1) (Riveline)	____
____ High Water Table (A2)	____ Bloated Crust (B12)	____ Sediment Deposits (B2) (Riveline)	____
____ Saturation (A3)	____ Aquatic Invertebrates (B13)	____ Drift Deposits (B3) (Riveline)	____
____ Water Marks (B1) (Nonriverine)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)	____
____ Sediment Deposits (B2) (Nonriverine)	____ Oxidized Rhizospheres along Living Roots (C3)	____ Dry-Season Water Tables (C2)	____
____ Drift Deposits (B3) (Nonriverine)	____ Presence of Reduced Iron (C4)	____ Clay-rich Burrows (C5)	____
____ Surface Soil Cracks (B6)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crystalline Voids on Aerial Imagery (C8)	____
____ Inundation Visible on Aerial Imagery (B7)	____ Thin Muck Surfaces (C7)	____ Shallow Aquifers (D3)	____
____ Water-Stained Leaves (B8)	____ Other (Explain in Remarks)	____ FAC-Neutral Test (D5)	____
Yes ____ No ____ Depth (inches): ____ Yes ____ No ____ Depth (inches): ____ Yes ____ No ____ Depth (inches): ____		Wetland Hydrology Present? Yes ____ No ____ (includes ancillary findings)	

Remarks:

with A

Project/Site: Schmidt City/Country: K.H.Kans State: WA Sampling Date: 10-7-82
Applicant/Owner: Investigator(s): S.W. Scumell Sampling Point: DP2
Landform (bluffs, terraces, etc.): Local relief (concave, convex, none): Slope (%):
Subregion (LFR): 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 "Normal Chronosequences" present? Yes No
Are Vegetation Soil or Hydrology naturally problematic? Are "Normal Chronosequences" present? Yes No

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

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks:	grazed in wetland pasture		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Abundance % Count	Dominant Indicator Species?	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:
1. _____	_____	_____	(A) <u>2</u>
2. _____	_____	_____	(B) <u>2</u>
3. _____	_____	_____	(AB) <u>100</u>
4. _____	_____	_____	
Shrub/Small Stratum (Plot size: _____)			
1. _____	_____	_____	
2. _____	_____	_____	
3. _____	_____	_____	
4. _____	_____	_____	
5. _____	_____	_____	
6. _____	_____	_____	
Herb Stratum (Plot size: _____)			
1. _____	_____	_____	
2. _____	_____	_____	
3. _____	_____	_____	
4. _____	_____	_____	
5. _____	_____	_____	
6. _____	_____	_____	
7. _____	_____	_____	
8. _____	_____	_____	
Woody Vine Stratum (Plot size: _____)			
1. _____	_____	_____	
2. _____	_____	_____	
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____			
Remarks:			

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HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required):	
Primary Indicators (minimum of one required; check all that apply)			
Surface Water (A1)	Yes	Salt Crust (B11)	Water Marks (B1) (Rivertine)
High Water Table (A2)	No	Booth Crust (B12)	Sediment Deposits (B2) (Rivertine)
Saturation (A3)	Yes	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Rivertine)
Water Marks (B1) (Nonrivertine)	Yes	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Sediment Deposits (B2) (Nonrivertine)	Yes	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonrivertine)	Yes	Presence of Reduced Iron (C4)	Clay/Silt Burrows (C8)
Surface Soil Cracks (B6)	Yes	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C8)
Inundation Visible on Aerial Imagery (B7)	Yes	Thin Muck Surfaces (C7)	Shallow Aquifers (C9)
Water-Shed Leaves (B9)	Yes	Other (Explain in Remarks)	FAC-Neutral Test (C5)
Field Observations:			
Surface Water Present?	Yes	Depth (inches):	
Water Table Present?	Yes	Depth (inches):	
Saturation Present?	Yes	Depth (inches):	
Includes ancillary data			
Describe Ricorated Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.			
Remarks:		Wetland Hydrology Present? Yes ☒ No ☐	

Wet A

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Use: Schmidt City/County: K. Harris Sampling Date: 10-7-21
Applicant/Owner: Sub Schmidt State: WA Sampling Point: DP#34
Investigator(s): Sub Schmidt Section, Township, Range: S 32 T 18 N R 14 E
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/hydrology significantly disturbed? Yes ☐ No ☒
Are vegetation/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 ☒ No ☐ Is the Sampled Area within a Wetland? Yes ☐ No ☐
Hydric Soil Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☐ No ☐

Remarks: gravel irrigated pasture

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute Dominant Indicator % Cover, Species, or FAC	Dominance Test Worksheet
1. _____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (AB)
Shrub/Small Stratum (Plot size: _____)	_____	Prevalence Index Worksheet
1. _____	_____	Total % Cover of: _____
2. _____	_____	OBL species x1 = _____
3. _____	_____	FACW species x2 = _____
4. _____	_____	FAC species x3 = _____
5. _____	_____	UPL species x4 = _____
6. _____	_____	Column Totals: _____ (B)
Herb Stratum (Plot size: _____)	_____	Prevalence Index = B/A = _____
1. <u>Plantains available</u>	_____	Hydrophytic Vegetation Indicators:
2. _____	_____	Dominance Test is >50% ☒
3. _____	_____	Prevalence Index is <3.0 ☐
4. _____	_____	Morphological Adaptations? (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	Problematic Hydrophytic Vegetation? (Explain)
6. _____	_____	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. _____	_____	Hydrophytic Vegetation Present? Yes ☒ No ☐
8. _____	_____	% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____
Wood/Very Stratum (Plot size: _____)	_____	Remarks: _____
1. _____	_____	
2. _____	_____	

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)	Sampling Point
Depth (inches): <u>14</u>	Matrix: <u>1044211</u>
Color (Munsell): <u>5Y 4/2</u>	Color (Munsell): <u>5Y 4/2</u>
Texture: <u>clay</u>	Texture: <u>clay</u>
Moisture: <u>moist</u>	Moisture: <u>moist</u>
Roots: <u>fine</u>	Roots: <u>fine</u>
Other: _____	Other: _____
Indicators for Problematic Hydric Soils:	Indicators for Problematic Hydric Soils:
1 on Muck (A9) (LRR C)	1 on Muck (A9) (LRR C)
2 on Muck (A10) (LRR B)	2 on Muck (A10) (LRR B)
Reduced Vertic (F18)	Reduced Vertic (F18)
Red Parent Material (F22)	Red Parent Material (F22)
Other (Explain in Remarks)	Other (Explain in Remarks)
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Present? Yes ☒ No ☐	Hydric Soil Present? Yes ☒ No ☐

HYDROLOGY

Wetland Hydrology Indicators:	Wetland Hydrology Indicators:
Surface Water (A1)	Surface Water (A1)
High Water Table (A2)	High Water Table (A2)
Saturation (A3)	Saturation (A3)
Water Marks (B1) (Nonriverine)	Water Marks (B1) (Nonriverine)
Sediment Deposits (B2) (Nonriverine)	Sediment Deposits (B2) (Nonriverine)
Drift Deposits (B3) (Nonriverine)	Drift Deposits (B3) (Nonriverine)
Drift Deposits (B4) (Riverine)	Drift Deposits (B4) (Riverine)
Drift Deposits (B5) (Riverine)	Drift Deposits (B5) (Riverine)
Drift Deposits (B6) (Riverine)	Drift Deposits (B6) (Riverine)
Drift Deposits (B7) (Riverine)	Drift Deposits (B7) (Riverine)
Drift Deposits (B8) (Riverine)	Drift Deposits (B8) (Riverine)
Drift Deposits (B9) (Riverine)	Drift Deposits (B9) (Riverine)
Drift Deposits (B10) (Riverine)	Drift Deposits (B10) (Riverine)
Drift Deposits (B11) (Riverine)	Drift Deposits (B11) (Riverine)
Drift Deposits (B12) (Riverine)	Drift Deposits (B12) (Riverine)
Drift Deposits (B13) (Riverine)	Drift Deposits (B13) (Riverine)
Drift Deposits (B14) (Riverine)	Drift Deposits (B14) (Riverine)
Drift Deposits (B15) (Riverine)	Drift Deposits (B15) (Riverine)
Drift Deposits (B16) (Riverine)	Drift Deposits (B16) (Riverine)
Drift Deposits (B17) (Riverine)	Drift Deposits (B17) (Riverine)
Drift Deposits (B18) (Riverine)	Drift Deposits (B18) (Riverine)
Drift Deposits (B19) (Riverine)	Drift Deposits (B19) (Riverine)
Drift Deposits (B20) (Riverine)	Drift Deposits (B20) (Riverine)
Drift Deposits (B21) (Riverine)	Drift Deposits (B21) (Riverine)
Drift Deposits (B22) (Riverine)	Drift Deposits (B22) (Riverine)
Drift Deposits (B23) (Riverine)	Drift Deposits (B23) (Riverine)
Drift Deposits (B24) (Riverine)	Drift Deposits (B24) (Riverine)
Drift Deposits (B25) (Riverine)	Drift Deposits (B25) (Riverine)
Drift Deposits (B26) (Riverine)	Drift Deposits (B26) (Riverine)
Drift Deposits (B27) (Riverine)	Drift Deposits (B27) (Riverine)
Drift Deposits (B28) (Riverine)	Drift Deposits (B28) (Riverine)
Drift Deposits (B29) (Riverine)	Drift Deposits (B29) (Riverine)
Drift Deposits (B30) (Riverine)	Drift Deposits (B30) (Riverine)
Drift Deposits (B31) (Riverine)	Drift Deposits (B31) (Riverine)
Drift Deposits (B32) (Riverine)	Drift Deposits (B32) (Riverine)
Drift Deposits (B33) (Riverine)	Drift Deposits (B33) (Riverine)
Drift Deposits (B34) (Riverine)	Drift Deposits (B34) (Riverine)
Drift Deposits (B35) (Riverine)	Drift Deposits (B35) (Riverine)
Drift Deposits (B36) (Riverine)	Drift Deposits (B36) (Riverine)
Drift Deposits (B37) (Riverine)	Drift Deposits (B37) (Riverine)
Drift Deposits (B38) (Riverine)	Drift Deposits (B38) (Riverine)
Drift Deposits (B39) (Riverine)	Drift Deposits (B39) (Riverine)
Drift Deposits (B40) (Riverine)	Drift Deposits (B40) (Riverine)
Drift Deposits (B41) (Riverine)	Drift Deposits (B41) (Riverine)
Drift Deposits (B42) (Riverine)	Drift Deposits (B42) (Riverine)
Drift Deposits (B43) (Riverine)	Drift Deposits (B43) (Riverine)
Drift Deposits (B44) (Riverine)	Drift Deposits (B44) (Riverine)
Drift Deposits (B45) (Riverine)	Drift Deposits (B45) (Riverine)
Drift Deposits (B46) (Riverine)	Drift Deposits (B46) (Riverine)
Drift Deposits (B47) (Riverine)	Drift Deposits (B47) (Riverine)
Drift Deposits (B48) (Riverine)	Drift Deposits (B48) (Riverine)
Drift Deposits (B49) (Riverine)	Drift Deposits (B49) (Riverine)
Drift Deposits (B50) (Riverine)	Drift Deposits (B50) (Riverine)
Drift Deposits (B51) (Riverine)	Drift Deposits (B51) (Riverine)
Drift Deposits (B52) (Riverine)	Drift Deposits (B52) (Riverine)
Drift Deposits (B53) (Riverine)	Drift Deposits (B53) (Riverine)
Drift Deposits (B54) (Riverine)	Drift Deposits (B54) (Riverine)
Drift Deposits (B55) (Riverine)	Drift Deposits (B55) (Riverine)
Drift Deposits (B56) (Riverine)	Drift Deposits (B56) (Riverine)
Drift Deposits (B57) (Riverine)	Drift Deposits (B57) (Riverine)
Drift Deposits (B58) (Riverine)	Drift Deposits (B58) (Riverine)
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Drift Deposits (B60) (Riverine)	Drift Deposits (B60) (Riverine)
Drift Deposits (B61) (Riverine)	Drift Deposits (B61) (Riverine)
Drift Deposits (B62) (Riverine)	Drift Deposits (B62) (Riverine)
Drift Deposits (B63) (Riverine)	Drift Deposits (B63) (Riverine)
Drift Deposits (B64) (Riverine)	Drift Deposits (B64) (Riverine)
Drift Deposits (B65) (Riverine)	Drift Deposits (B65) (Riverine)
Drift Deposits (B66) (Riverine)	Drift Deposits (B66) (Riverine)
Drift Deposits (B67) (Riverine)	Drift Deposits (B67) (Riverine)
Drift Deposits (B68) (Riverine)	Drift Deposits (B68) (Riverine)
Drift Deposits (B69) (Riverine)	Drift Deposits (B69) (Riverine)
Drift Deposits (B70) (Riverine)	Drift Deposits (B70) (Riverine)
Drift Deposits (B71) (Riverine)	Drift Deposits (B71) (Riverine)
Drift Deposits (B72) (Riverine)	Drift Deposits (B72) (Riverine)
Drift Deposits (B73) (Riverine)	Drift Deposits (B73) (Riverine)
Drift Deposits (B74) (Riverine)	Drift Deposits (B74) (Riverine)
Drift Deposits (B75) (Riverine)	Drift Deposits (B75) (Riverine)
Drift Deposits (B76) (Riverine)	Drift Deposits (B76) (Riverine)
Drift Deposits (B77) (Riverine)	Drift Deposits (B77) (Riverine)
Drift Deposits (B78) (Riverine)	Drift Deposits (B78) (Riverine)
Drift Deposits (B79) (Riverine)	Drift Deposits (B79) (Riverine)
Drift Deposits (B80) (Riverine)	Drift Deposits (B80) (Riverine)
Drift Deposits (B81) (Riverine)	Drift Deposits (B81) (Riverine)
Drift Deposits (B82) (Riverine)	Drift Deposits (B82) (Riverine)
Drift Deposits (B83) (Riverine)	Drift Deposits (B83) (Riverine)
Drift Deposits (B84) (Riverine)	Drift Deposits (B84) (Riverine)
Drift Deposits (B85) (Riverine)	Drift Deposits (B85) (Riverine)
Drift Deposits (B86) (Riverine)	Drift Deposits (B86) (Riverine)
Drift Deposits (B87) (Riverine)	Drift Deposits (B87) (Riverine)
Drift Deposits (B88) (Riverine)	Drift Deposits (B88) (Riverine)
Drift Deposits (B89) (Riverine)	Drift Deposits (B89) (Riverine)
Drift Deposits (B90) (Riverine)	Drift Deposits (B90) (Riverine)
Drift Deposits (B91) (Riverine)	Drift Deposits (B91) (Riverine)
Drift Deposits (B92) (Riverine)	Drift Deposits (B92) (Riverine)
Drift Deposits (B93) (Riverine)	Drift Deposits (B93) (Riverine)
Drift Deposits (B94) (Riverine)	Drift Deposits (B94) (Riverine)
Drift Deposits (B95) (Riverine)	Drift Deposits (B95) (Riverine)
Drift Deposits (B96) (Riverine)	Drift Deposits (B96) (Riverine)
Drift Deposits (B97) (Riverine)	Drift Deposits (B97) (Riverine)
Drift Deposits (B98) (Riverine)	Drift Deposits (B98) (Riverine)
Drift Deposits (B99) (Riverine)	Drift Deposits (B99) (Riverine)
Drift Deposits (B100) (Riverine)	Drift Deposits (B100) (Riverine)

Project/She: Schmidt City/Country: Kittitas Sampling Date: 10-7-21
Applicant/Owner: _____ State: WA Sampling Point: DP# 36

Project/Site: Schmidt City/County: Kittitas Sampling Date: 10-7-07
 Applicant/Owner: _____ State: WA Sampling Point: DP
 Investigators: Ed Schmitt Section, Township, Range: S32 T19N R14E
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat. _____ Long. _____ Datum: _____
 Soil Map Unit Name: _____ NMI 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? Yes _____ No _____
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes _____	No _____
Hydric Soil Present?	Yes _____	No _____
Is the Sampled Area within a Wetland?	Yes _____	No _____

Wetland Hydrology Present?	Yes	No
Remarks:	grazed irrigated pasture	

Dominance Test Worksheet:

Tree Stratum Plot size: _____

Absolute Dominant Indicator
% Cover Species? Status

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Species/Straw Station (Plot also: _____)	Total Cover _____ = Total Cover	Total Number of Dominant Species Across All Straws _____	(6)
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
Percent of Dominant Species That Are OBL, FACW, or FAC: _____			
(AB) _____			

Prevalence Index Worksheet:	
Total % Cover of:	Multiply by:
OBL species _____	x1 = _____
FACW species _____	x2 = _____
FAC species _____	x3 = _____

Nearby Shrub(s) (plot size: Fernon)
 1. _____
 2. _____
 3. _____

= Total Cover
 FACU species 100
 UPL species 57A
 Column Totals: (A) _____
 Prevalence Index = B/A = _____

Hypophytic Vegetation Indicators:	
Indicator	Value
4. Dominance Test is >50%	
5. Prevalence Index is ≤ 3.0	
6. Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)	
7.	

6. _____
_____ = Total Cover

Wood's Mine Stream (Plot size: _____)

1. _____

2. _____

Problematic Hydrophytic Vegetation? (Explain) _____

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum Percentage of herbaceous plants in the herb stratum	% Cover of Biotic Crust Percentage of biotic crust cover	% Total Cover Percentage of total cover	Hydrophyllous Vegetation Present?	
			Yes	No

Profile Description: [Describe to the depth needed to document the indicator or confirm the absence of indicators.]

	Radiex Features						
	Matrix						
Depth [feet/m]	Color (mudst)	%	Color (mortar)	%	Type	Loc.	Remarks

[illegible]

Type	C-Concentration	D-Dissolution	R/R-Reduced Matrix	CS-Covered or Coated Sand Grains	^a Location	M-Matrix
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						
Histosol (A1)	---	Sandy Redox (Sg)	---	1 cm Muck (AG) (LRR C)	---	---
Mistic Entisol (A2)	---	Silted Matrix (Mst)	---	2 cm Muck (AG) (LRR B)	---	---

Black Plastic (A3)	Black Plastic (A3)
Black Plastic (A4)	Black Plastic (A4)
Hydrogen Sulfide (A5)	Hydrogen Sulfide (A5)
Stratified Layers (A6) (LRR C)	Stratified Layers (A6) (LRR C)
Scalloped Matrix (F1)	Scalloped Matrix (F1)
1 cm Mask (A8) (LRR D)	1 cm Mask (A8) (LRR D)
Plasticized Black Surface (A9)	Plasticized Black Surface (A9)
Leaky Dark Surface (F8)	Leaky Dark Surface (F8)
Deposited Matrix (F3)	Deposited Matrix (F3)
Loamy Geyser Matrix (F2)	Loamy Geyser Matrix (F2)
Loamy Mucky Material (F1)	Loamy Mucky Material (F1)
Redwood Vents (F16)	Redwood Vents (F16)
Red Parent Material (TF2)	Red Parent Material (TF2)
Other (Explain in Remarks)	Other (Explain in Remarks)
2 cm Mask (F17) (LRR A)	2 cm Mask (F17) (LRR A)

^bIndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

-----	Deposited Iron oxides (F7)
-----	Radiar Depressions (F8)
-----	Vernal Pools (F9)

-----	Thicket Dark Surface (A11)
-----	Barren Dark Surface (A12)
-----	Sandy Mucky Mineral (S1)
-----	Sandy Mucky Matrix (B4)

-----	Restrictive Layer (if present):

Type: _____	Hydric Soil Present? Yes ☒ No ☐
Depth (inches): _____	
Remarks: _____	

Wellhead Hydrology Indicators: _____

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

Secondary Indicators (2 or more required): _____

Water Marks (B1) (Riverline) _____

Surface Water (A1) _____

Salt Crust (B11) _____

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)	Channelge Patterns (B10)
Sediment Deposits (B2) (Nonriverine)	Oxidized Ferozophenol along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C6)
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Soils (C5)	Saturation Visible on Aerial Imagery (C8)
Inundation Visible on Aerial Imagery (B7)	Then Much Sources (C7)	Shallow Aquifer (D3)
Water-Saturated Lenses (B9)	Other <i>Alphaplan</i> in Remarks	FAC-Neutral Test (D5)

Field Observations:		Wetland Hydrology Present?	
Surface Water Present?	Yes _____ No <u> </u> Depth (inches): _____	Yes _____ No <u> </u>	
Water Table Present?	Yes _____ No <u> </u> Depth (inches): _____	Yes _____ No <u> </u>	
Saturation Present?	Yes _____ No <u> </u> Depth (inches): _____	Yes _____ No <u> </u>	
Includes capillary fringe			

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

Wet B

WETLAND DETERMINATION DATA FORM - Acid West Region

Project/Site: Schmidt City/County: Kittitas Sampling Date: 10-7-21
Applicant/Owner: SEA Schmidt State: WA Sampling Point: DR #37
Investigator(s): SEA Schmidt Section, Township, Range: S 32 T 18 N R 14 E
Landform (hilltops, terraces, 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 ☐ or hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are vegetation ☐ 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 ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydro Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks:	<u>grazed irrigated pasture</u>		

VEGETATION - Use scientific names of plants.

Tree Stratum	Pilot size	Abundance	Dominant Indicator	St. Cover	Species	Stratum
1.						
2.						
3.						
4.						
Shrub/Strawb Stratum (Pilot size)						
1.						
2.						
3.						
4.						
5.						
Herb Stratum (Pilot size)						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
Woods/Vine Stratum (Pilot size)						
1.						
2.						
% Bare Ground in Herb Stratum _____ % Cover of Blobs Crust _____						
Remarks:						

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Moisture	Color (Munsell)	Texture	Type	Loc	Remarks
1						
2						
3						
4						
5						
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7						
8						
9						
10						
11						
12						
13						
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98						
99						
100						

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one must be checked at this level)	Secondary Indicators (2 or more required)
Surface Water (A1)	Water Marks (B1) (Riverine)
High Water Table (A2)	Sediment Deposits (B2) (Riverine)
Saturated (A3)	Drift Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine)	Drainage Patterns (B10)
Sediment Deposits (B2) (Nonriverine)	Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonriverine)	Crayfish Burrows (C6)
Surface Soil Cracks (B8)	Saturation Visible on Aerial Imagery (C8)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquifers (C3)
Water-Soaked Leaves (B4)	FAC-Neutral Test (D5)

Field Observations:

Water Table Present?	Yes	No	Depth (inches)
Water Table Present?	Yes	No	1
Saturation Present?	Yes	No	1

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Wet B

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Schmidt City/County: Kittitas Sampling Date: 10-7-21
Applicant/Owner: SWC Sampling Point: DR# 39
Investigator(s): SWC Section, Township, Range: S32 T18N R14E
Landform (bluffs, terrace, etc.): _____ Slope (%): _____
Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NW1 classification: _____

Are climatic / hydrologic conditions on this site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are vegetation, soil, or hydrology significantly disturbed? Are "Normal Characteristics" 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 ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydro Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks:	<u>grazed irrigated pasture</u>		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Abundant Dominant Indicator	Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
Total Number of Dominant Species Across All Strata: _____ (B)			
Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)			
Prevalence Index worksheet:			
Total % Cover of:			
OBL species _____ x1 = _____			
FACW species _____ x2 = _____			
FAC species _____ x3 = _____			
UPL species _____ x4 = _____			
Column Totals: _____ (A) _____ (B)			
Prevalence Index = B/A = _____			
Hydrophytic Vegetation Indicators:			
Dominance Index is > 50% _____			
Prevalence Index is > 3.0 _____			
Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet) _____			
Problematic Hydrophytic Vegetation* (Explain) _____			
*Indicators of hydro soil and wetland hydrology must be present, unless disturbed or problematic.			
Hydrophytic Vegetation Present? Yes ☒ No ☐			
Wood/Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
Total Cover _____			
% Bare Ground in Herb Stratum _____ % Cover of Blade Crust _____			
Remarks:			

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Moisture	Color (Munsell)	Texture	Location	Remarks
0-10	10/10/12	2.5Y 4/2	CMF	only	_____
10-20	_____	_____	_____	_____	_____
20-30	_____	_____	_____	_____	_____
30-40	_____	_____	_____	_____	_____
40-50	_____	_____	_____	_____	_____
50-60	_____	_____	_____	_____	_____
60-70	_____	_____	_____	_____	_____
70-80	_____	_____	_____	_____	_____
80-90	_____	_____	_____	_____	_____
90-100	_____	_____	_____	_____	_____
Type: C-Concentration, D-Dispersion, R-Reduced Matrix, CS-Covered or Coated Sand Grains, Location: PL-Pore Linings, M-Matrix.					
Hydro Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					
1 cm Muck (A9) (LRR C)					
2 cm Muck (A10) (LRR B)					
Reduced Vertic (F16)					
Red Parent Material (TF2)					
Other (Explain in Remarks)					
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.					
Hydro Soil Present? Yes ☒ No ☐					

HYDROLOGY

Wetland Hydrology Indicators:

Examine Indicators (minimum of one reading; check all that apply)

Surface Water (A1)	Yes ☒ No ☐	Soil Crust (B11)	Yes ☒ No ☐
High Water Table (A2)	Yes ☒ No ☐	Block Crust (B12)	Yes ☒ No ☐
Saturation (A3)	Yes ☒ No ☐	Aquatic Invertebrates (B13)	Yes ☒ No ☐
Water Marks (B1) (Noninvasive)	Yes ☒ No ☐	Hydrogen Sulfide Odor (C1)	Yes ☒ No ☐
Sediment Deposits (B2) (Noninvasive)	Yes ☒ No ☐	Older/Reddish-brown along Living Roots (C3)	Yes ☒ No ☐
Dirt Deposits (B3) (Noninvasive)	Yes ☒ No ☐	Presence of Reduced Iron (C4)	Yes ☒ No ☐
Surface Soil Cracks (B6)	Yes ☒ No ☐	Recent Iron Reduction in Tilled Soils (C6)	Yes ☒ No ☐
Inundation Visible on Aerial Imagery (B7)	Yes ☒ No ☐	Thin Muck Surface (C7)	Yes ☒ No ☐
Water-Saturated Leaves (B8)	Yes ☒ No ☐	Other (Explain in Remarks)	Yes ☒ No ☐

Field Observations:

Surface Water Present?	Yes ☒ No ☐	Depth (inches):	_____
Water Table Present?	Yes ☒ No ☐	Depth (inches):	12
Saturation Present?	Yes ☒ No ☐	Depth (inches):	_____

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

Remarks:

Project/Site: Schmidt City/Country: Kathmandu Sampling Date: 10-7-21
Applicant/Owner: _____ State: WA Sampling Point: DREYD
Investigator(s): SC & Scully Section, Township, Range: S 32 T 19 N R 14 E
Landform (hilltops, terraces, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (URR): _____ Lat: _____ Long: _____ Datum: _____
Soil Map User Name: _____ NW classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes / No _____ (If no, explain in Remarks.)
Is "Normal Circumstances" present? Yes _____ No /
Are Vegetation _____ or Hydrology _____ significantly disturbed? (If needed, explain any answers in Remarks.)
Soil _____ or Hydrology _____ naturally problematic?

Hydrophytic Vegetation Present?		Is the Sampled Area within a Wetland?	
Yes	No	Yes	No
☒	☐	☐	☒
☐	☐	☐	☐
Wetland Hydrology Present?			
☐	☐	☐	

Remarks: *grassy field, irregular position*

Tree Stratum	(Plot size: _____)	Absolute Dominant Indicator % Cover	Dominant Species?	Stem #	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
1.					/	
2.						
3.						
4.						
Sadron/Shrub Stratum	(Plot size: _____)		Total Cover		Total Number of Dominant Species Across All Strata:	(B)
1.					100	
2.						
3.						
4.						
5.						
6.						
Herb Stratum	(Plot size: _____)		Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	(AB)
1.	Fescue and blue					
2.						
3.						

Prevalence Index = B/A = _____
 Multiplic by: _____
 Total % Cover of: _____
 OBL species _____ x1 = _____
 FACW species _____ x2 = _____
 FAG species _____ x3 = _____
 FACH species _____ x4 = _____
 UPL species _____ x5 = _____
 Column Totals: _____ (A) _____ (B)

1.	_____	Hydrophytic Vegetation Indicators:
2.	_____	— Disturbance Test is >50'
3.	_____	— Prevalence Index is <3.0'
4.	_____	— Morphological Adequacy ¹ (Provide supporting data in Remarks or on a separate sheet)
5.	_____	— Problematic Hydrophytic Vegetation ¹ (Explain)
6.	_____	—
7.	_____	
8.	_____	
	± Total Cover	
Woody Vine Stratum (Plot size: _____)		
1.	_____	
2.	_____	
	± Total Cover	
% Bare Ground in Herb Stratum _____		
		Hydrophytic Vegetation Present? Yes _____ No _____
% Cover of Biotic Crust _____		

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Wetland Hydrology Indicators:		Secondary Indicators (2 or more resultant)	
Borrow Indicators (subgroup of one resultant, check all that apply)			
Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Rivertine)	
High Water Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Rivertine)	
Saturation (A3)	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Rivertine)	
Water Marks (B1) (Nonrivertine)	Hydrogen Sulfide Odor (C1)	Crackage Patterns (B10)	
Sediment Deposits (B2) (Nonrivertine)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)	
Drift Deposits (B3) (Nonrivertine)	Presence of Reduced Iron (C4)	Clayfish Burrows (C5)	
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)	
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquifard (D3)	
Water-Stained Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes _____ No _____	
Surface Water Present?	Yes _____ No ☒		
Water Table Present?	Yes _____ No _____		
Saturation Present?	Yes _____ No _____		
Includes soil/soil, tinge			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Wet B

WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: Schmidt City/Country: Kittitas Sampling Date: 10-7-21
Applicant/Owner: 344 Semell State: WA Sampling Point: DP#41
Investigator(s): 344 Semell Section, Township, Range: S 32 T 18 N R 14 E
Landform (alluvial, terrace, etc.): _____ Slope (%): _____
Subregion (LRR): _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: _____
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No _____
Are climatic/hydrologic conditions on the site significantly disturbed? Yes _____ No ✓
Are vegetation, soil, or hydrology naturally problematic? Yes _____ No ✓
Are vegetation, soil, or hydrology naturally problematic? Yes _____ No ✓

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

Hydrophytic Vegetation Present?	Yes <u>✓</u> No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u> No _____
Hydrophytic Soil Present?	Yes <u>✓</u> No _____		
Wetland Hydrology Present?	Yes <u>✓</u> No _____		
Remarks:	<u>grazed irrigated pasture</u>		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Abundant Dominant Indicator % Cover: <u>80%</u> Status: <u>Stable</u>	Dominance Test (see sheet):	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
1. _____		Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
2. _____		Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (AB)	
3. _____		Prevalence Index Worksheet:	
4. _____		Total % Cover of:	
5. _____		OBL species x1 = _____	
6. _____		FACW species x2 = _____	
7. _____		FAC species x3 = _____	
8. _____		UPL species x4 = _____	
9. _____		Column Totals: _____	
10. _____		Prevalence Index = B/A = _____	
11. _____		Hydrophytic Vegetation Indicators:	
12. _____		Dominance Test is > 50%:	
13. _____		Prevalence Index is < 3.0:	
14. _____		Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet):	
15. _____		Problematic Hydrophytic Vegetation (Explain):	
16. _____		Indicators of hydrophytic soil and wetland hydrology must be present, unless disturbed or problematic:	
17. _____		Hydrophytic Vegetation Present?	Yes <u>✓</u> No _____
18. _____		% Bare Ground in Herb Stratum _____	
19. _____		% Cover of Biotic Crust _____	
20. _____		Remarks:	

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Moisture	Color (Munsell)	Texture	Location	Remarks
0-10	10-15	10YR 2/2	CL	10-15	
10-20	10-15	10YR 3/2	CL	10-15	
20-30	10-15	10YR 3/2	CL	10-15	
30-40	10-15	10YR 3/2	CL	10-15	
40-50	10-15	10YR 3/2	CL	10-15	
50-60	10-15	10YR 3/2	CL	10-15	
60-70	10-15	10YR 3/2	CL	10-15	
70-80	10-15	10YR 3/2	CL	10-15	
80-90	10-15	10YR 3/2	CL	10-15	
90-100	10-15	10YR 3/2	CL	10-15	

Type: C-Concentration, De-Deposition, RM-Reduced Matrix, CG-Covered or Coated Sand Grains. Location: PL-Pore Lining, M-Matrix.

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

1. Histosol (A1)	2. Sandy Retic (B1)	3. Shredded Matrix (B2)	4. 1 on Muck (A10) (LRR C)
5. Black Muck (A3)	6. Loamy Mucky Mineral (F1)	7. Loamy Clayey Matrix (F2)	8. Reduced Vertic (F18)
9. Hydrogen Sulfide (A4)	10. Duplicated Matrix (F3)	11. Retic Dark Surface (F8)	12. Red Parent Material (T22)
13. Striped Layers (A5) (LRR C)	14. 1 on Muck (A5) (LRR D)	15. Explored Dark Surface (F7)	16. Other (Explain in Remarks)
17. Thick Dark Surface (A11)	18. Sandy Mucky Mineral (S1)	19. Retic Depressions (F8)	
20. Sandy Mucky Mineral (S4)	21. Retic Layer (if present):		

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

Hydrophytic Soil Present? Yes ✓ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Phytometer Indicators (minimum of one required, check all that apply):

1. Surface Water (A1)	2. Salt Crust (B11)	3. Water Marks (B1) (Riverine)	4. Sediment Deposits (B2) (Riverine)
5. High Water Table (A2)	6. Biotic Crust (B12)	7. Drift Deposits (B3) (Riverine)	8. Drainage Patterns (B10)
9. Salivation (A3)	10. Hydrogen Sulfide Odor (C1)	11. Dry-Season Water Table (C2)	12. Clayfish Burrows (C6)
13. Water Marks (B1) (Nonriverine)	14. Oxidized Rhizospheres along Living Roots (C3)	15. Presence of Reduced Iron (C4)	16. Saturation Visible on Aerial Imagery (C9)
17. Sediment Deposits (B2) (Nonriverine)	18. Recent Iron Reduction in Tilled Soils (C5)	19. Thin Muck Surface (C7)	20. Shadow Aquifers (D3)
21. Drift Deposits (B3) (Nonriverine)	22. Water-Stained Leaves (B9)	23. Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <u>✓</u> No _____	Depth (inches):	_____
Water Table Present?	Yes <u>✓</u> No _____	Depth (inches):	_____
Scumming Present?	Yes <u>✓</u> No _____	Depth (inches):	_____
Includes capillary fringe?	Yes <u>✓</u> No _____	Depth (inches):	_____

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

Remarks:

wet C

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Schmidt City/County: Kittitas Sampling Date: 10-7-21
Applicant/Owner: SWA Sampling Point: DP#42
Investigator(s): SWA Status: 532 TBN K/E
Landform (hilllope, terrace, etc.): SWA Section, Township, Range: 532 TBN K/E
Subregion (LRQ): SWA Local relief (concave, convex, none): SWA Slope (%): SWA
Soil Map Unit Name: SWA Lat: SWA Long: SWA Datum: SWA
Soil Map Unit Name: SWA NW1 classification: SWA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are vegetation / soil / hydrology significantly disturbed? Yes ☒ No ☐
Are vegetation / soil / hydrology naturally problematic? Yes ☒ No ☐ (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 ☒ No ☐
Hydrophytic Soil Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☒ No ☐
Remarks: open soil irrigated pasture

VEGETATION - Use scientific names of plants.

Index	Stratum	Plot size	Absolute % Cover	Dominant Indicator Species?	Remarks
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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97.					
98.					
99.					
100.					

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth (inches): 16 Moisture: 100% Color (Munsell): 10YR 2/2 Color (Munsell): 10YR 2/2 Type: 10YR 2/2 Location: 10YR 2/2
Hydrophytic Soil Indicators: (Applicable to all LRQs, unless otherwise noted.)
Type: C-Concentration, D-Dispersion, RM-Reduced Matrix, CB-Covered or Coated Sand Grains.
Histic (A1) ☐ Sandy Redox (S8) ☐
Histic Epipedon (A2) ☐ Striped Matrix (S8) ☐
Black Histic (A3) ☐ Loamy Mucky Mineral (F1) ☐
Hydrogen Sulphide (A4) ☐ Loamy Gleyed Matrix (F2) ☐
Stratified Layers (A5) (LRR C) ☐ Degraded Matrix (F3) ☐
1 cm Muck (A6) (LRR D) ☐ Redox Dark Surface (F4) ☐
Degraded Below Dark Surface (A11) ☐ Degraded Dark Surface (F7) ☐
Thick Dark Surface (A12) ☐ Radon Depressions (F8) ☐
Sandy Mucky Mineral (S1) ☐ Vernal Pools (F9) ☐
Sandy Gleyed Matrix (S4) ☐
Remarks: Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (Minimum of one required; check all that apply)
Surface Water (A1) ☐ Soil Crust (B11) ☐
High Water Table (A2) ☐ Biotic Crust (B12) ☐
Saturation (A3) ☐ Aquatic Invertebrates (B13) ☐
Water Marks (B1) (Noninvasive) ☐ Hydrogen Sulphide Color (C1) ☐
Sediment Depositions (B2) (Noninvasive) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐
Drift Deposits (B3) (Noninvasive) ☐ Presence of Reduced Iron (C4) ☐
Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Tilled Soils (C5) ☐
Inundation Visible on Aerial Imagery (B7) ☐ Thin Muck Surface (C7) ☐
Water-Soaked Leaves (B8) ☐ Other (Explain in Remarks) ☐
Field Observations:
Surface Water Present? Yes ☐ No ☒ Depth (inches): 1
Water Table Present? Yes ☐ No ☒ Depth (inches): 1
Saturation Present? Yes ☐ No ☒ Depth (inches): 1
Includes capillary fringe? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks: Indicators of hydrophytic soil and wetland hydrology must be present, unless disturbed or problematic.

Sampling Point

Project Site: Schmidt City/County: Kittitas Sampling Date: 10-7-71
 Applicant/Owner: _____ State: WA Sampling Point: DP # 44
 Investigator(s): Ed Schmitt Section, Township, Range: S 32 T 19 N R 15 E
 Landform (hilltops, terraces, 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 the 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 ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒		
Wetland Hydrology Present?	Yes ☐ No ☒		
Remarks: <i>open field irrigated pasture</i>			

VEGETATION - Use scientific names of plants.

Total Stratum (Plot size: _____)		Absolute Dominant Indicator % Cover	Dominant Species?	Status
1.				
2.				
3.				
4.				
		= Total Cover		

Savanna/Shrub Stratum (Plot size: _____)		Absolute Dominant Indicator % Cover	Dominant Species?	Status
1.				
2.				
3.				
4.				
5.				
		= Total Cover		

Herb Stratum (Plot size: _____)		Absolute Dominant Indicator % Cover	Dominant Species?	Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		= Total Cover		

Woody Vine Stratum (Plot size: _____)		Absolute Dominant Indicator % Cover	Dominant Species?	Status
1.				
2.				
		= Total Cover		

% Bare Ground in Herb Stratum		% Cover of Biotic Crust	Remarks:	
1.				
2.				

Dominance Test worksheet:		Prevalence Index worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC:	(A) _____	Total % Cover of:	Multiplicity by:
Total Number of Dominant Species Across All Strata:	(B) _____	OBL species	x1 = _____
Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B) _____	FACW species	x2 = _____
		FAC species	x3 = _____
		FACU species	x4 = _____
		UR species	x5 = _____
		Column Totals:	(A) _____ (B) _____
Prevalence Index = B/A = _____		Hydrophytic Vegetation Indicators:	
Dominance Test is >50%		Prevalence Index is <3.0'	
Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)		Problematic Hydrophytic Vegetation? (Explain)	
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or pedogenic.		Hydrophytic Vegetation Present?	
		Yes _____ No _____	

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WETLAND DETERMINATION DATA FORM - Add West Region

Project/Site: Schmidt City/County: Ks, Hts Sampling Date: 10-7-21
 Applicant/Owner: Eda Smith State: WA Sampling Point: DP#45
 Investigator(s): 53278N R19 E Section, Township, Range: S 32 T 8 N R 19 E
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NW1 classification: _____
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)
 Are vegetation/soil/hydrology significantly disturbed? Yes _____ No ✓
 Are vegetation/soil/hydrology naturally problematic? Yes _____ No _____ (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 <u>✓</u> No _____	Is the Sampled Area within a Wetland?	Yes _____ No _____
Hydric Soil Present?	Yes <u>✓</u> No _____		
Wetland Hydrology Present?	Yes <u>✓</u> No _____		
Remarks:	<u>gravel irrigated pasture</u>		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Abundant Dominant Indicator % Cover, Species, Stratum	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____
1. _____		Total Number of Dominant Species Across All Strata: _____
2. _____		Percent of Dominant Species That Are OBL, FACW, or FAC: _____
3. _____		Prevalence Index worksheet: Total % Cover of: _____
4. _____		OBL species x1 = _____
5. _____		FACW species x2 = _____
6. _____		FAC species x3 = _____
7. _____		UPL species x4 = _____
8. _____		Column Totals: _____
Herb Stratum (Plot size: _____)		Prevalence Index = EIA = _____
1. <u>Spartanoid</u>	<u>50</u>	Hydrophytic Vegetation Indicators: _____
2. <u>Ekochim</u>	<u>50</u>	Prevalence Test is >50%? <u>✓</u>
3. _____		Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
4. _____		Problematic Hydrophytic Vegetation? (Explain)
5. _____		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____		Hydrophytic Vegetation Present? Yes <u>✓</u> No _____
7. _____		
8. _____		
Woody Vine Stratum (Plot size: _____)		
1. _____		
2. _____		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____	
Remarks:		

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (meters)	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Moisture	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Color (Munsell)	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Texture	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Structure	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Roots	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Remarks:	_____									

Type: _____	Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>✓</u>
Remarks: _____		

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required):
Surface Water (A1) _____	Water Marks (B1) (Riverine) _____
High Water Table (A2) _____	Sediment Deposits (B2) (Riverine) _____
Saturation (A3) _____	Drift Deposits (B3) (Riverine) _____
Water Marks (B1) (Nonriverine) _____	Drainage Patterns (B10) _____
Sediment Deposits (B2) (Nonriverine) _____	Dry-Season Water Table (C2) _____
Drift Deposits (B3) (Nonriverine) _____	Crayfish Burrows (C3) _____
Surface Soil Cracks (B6) _____	Saturation Visible on Aerial Imagery (C3) _____
Inundation Visible on Aerial Imagery (B7) _____	Shallow Aquifer (C3) _____
Water-Stained Leaves (B8) _____	FAC-Neutral Test (C6) _____
Field Observations:	
Surface Water Present? Yes _____ No <u>✓</u>	Depth (inches): _____
Water Table Present? Yes _____ No <u>✓</u>	Depth (inches): _____
Saturation Present? Yes <u>✓</u> No _____	Wetland Hydrology Present? Yes <u>✓</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: _____	

Project/Site: Schmidt City/County: Kittitas Sampling Date: 10-7-21

Applicant/Owner: _____ State: WA Sampling Point: DD# 46

Investigator(s): See Schmidt Section, Township, Range: S32 T18N R14E

Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NW classification: _____

Are climatic / hydrologic conditions on the site typical for the time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____ or Hydrology _____ significantly disturbed? Yes _____ No ✓

Are Vegetation _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes	No	In the Sampled Area within a Wetland?	Yes	No
Hydric Soil Present?	Yes	No			
Wetland Hydrology Present?	Yes	No	<i>yes need irrigation pond</i>		

Form 6082

Terrestrial Stratum (Plot size: _____)		Abundance	Dominant Indicator	Dominance Test worksheet:	
1.	2.	% Cover	Species?	Number of Dominant Species	That Are OBL, FACW, or FAC:
3.	4.			Total Number of Dominant Species Across All Strata:	(A)
5.	6.			Percent of Dominant Species That Are OBL, FACW, or FAC:	(B)
7.	8.				(A/B)
Savannah/Grass Stratum (Plot size: _____)					
1.	2.			Total % Cover of: _____	Multiple by: _____
3.	4.			OBL species _____	x1 = _____
5.	6.			FACW species _____	x2 = _____
7.	8.			FACU species _____	x3 = _____
9.	10.			UPL species _____	x4 = _____
11.	12.			Column Totals: _____	(A) _____
Herb Stratum (Plot size: _____)					
1.	2.			Prevalence Index = PIA = _____	
3.	4.			Hydrophytic Vegetation Indicators:	
5.	6.			- Dominance Test is >50%	
7.	8.			- Prevalence Index is >3.0	
9.	10.			- Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)	
11.	12.			- Problematic Hydrophytic Vegetation? (Explain)	
Woody/Vine Stratum (Plot size: _____)					
1.	2.			Indicators of hydro soil and wetland hydrology must be present, unless disturbed or nonalluvial.	
3.	4.			Hydrophytic Vegetation Present?	Yes _____ No _____
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____					
Remarks:					

Arde Wind - Version 2.0

[illegible]

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required):	
Surface Water (A1)	Self-Crust (B11)	Water Marks (B1) (Reversible)	Secondary Indicators (2 or more required):
High Water Tables (A2)	Stic Crust (B12)	Sediment Deposits (B2) (Reversible)	
Saturation (A3)	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Reversible)	
Water Marks (B1) (Nonreversible)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)	
Sediment Deposits (B2) (Nonreversible)	Odorized Rhizospheres along Living Roots (C3)	Dry-Season Water Tables (C2)	
Drift Deposits (B3) (Nonreversible)	Presence of Reduced Iron (C4)	Crayfish Burrows (C3)	
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Soils (C5)	Saturation Visible on Aerial Imagery (C6)	
Inundation Visible on Aerial Imagery (B7)	Thin Mud Surfaces (C7)	Shallow Aquifers (D3)	
Water-Soaked Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes ☒ No ☒	Wetland Hydrology Present? Yes ☒ No ☒	
Water Table Present?	Yes ☒ No ☒		
Saturation Present?	Yes ☒ No ☒		
Includes auxiliary lines: Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Project/Site: Schmidt City/County: Kittitas Sampling Date: 10-7-21
 Applicant/Owner: _____ State: WA Sampling Point: DAY 42
 Investigator(s): Ed Schmitt Section, Township, Range: S 32 T 18 N R 14 E
 Landform (hilltops, terraces, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Latitude: _____ Longitude: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for the time of year? Yes ✓ No _____ (If no, explain in Remarks.)
 Are Vegetation _____ or Hydrology _____ significantly disturbed? Yes _____ No ✓
 Are Vegetation _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes _____	No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	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:
1.					2 (A)
2.					2 (B)
3.					
4.					
Shrub/Strap Stratum (Plot size:)					
1.					1 (A)
2.					
3.					
4.					
Herb Stratum (Plot size:)					
1.	Festuca				
2.	Cornus				
3.					

5.		
6.		
7.		
8.		
Mosses/Vine Bramble (Plot size: _____)		
1.		

Confidence Test is >90%

Prevalence Index is <3.0

Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation? (Explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or anthropogenic.

Benthic Macroinvertebrates		Hydrophytic Vegetation Present?	
Yes	No	Yes	No
% Bare Ground in Herb Stratum _____ _____ is Total Cover			
% Cover of Blatic Crust _____ _____			

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Wetland Hydrology Indicators:		Secondary Indicators (2 or more required):	
Primary Indicators (minimum of one required; check all that apply):			
Surface Water (A1)	Yes	No	Water Marks (B1) (Riverine)
High Water Table (A2)	Yes	No	Sediment Deposits (B2) (Riverine)
Saturation (A3)	Yes	No	Drift Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine)	Yes	No	Drainage Patterns (B16)
Sediment Deposits (B2) (Nonriverine)	Yes	No	Drift-Sediment Water Tables (C2)
Drift Deposits (B3) (Nonriverine)	Yes	No	Gravelly Burrows (C8)
Surface Soil Cracks (B8)	Yes	No	Stands Visible on Aerial Imagery (C8)
Inundation Visible on Aerial Imagery (B7)	Yes	No	Shallow Aquifers (D3)
Water-Saturated Layers (B9)	Yes	No	FAC-Neutral Test (D5)
Field Observations:		Wetland Hydrology Present? Yes No	
Surface Water Present?	Yes No	Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present?	Yes No	Depth (inches):	
Saturation Present?	Yes No	Depth (inches):	
Includes capillary fringe			

Remarks: *no. 10. 11. 12. 13.*

12-7-01
Dott48

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

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒		
Wetland Hydrology Present?	Yes ☐ No ☐		
Remarks: <i>open sand, irregular patch</i>			

Absolute	Dominant Indicator	Dominance Test worksheet:
----------	--------------------	---------------------------

Tree Stratum (Plot size: _____)		% Cover	Seeds?	Stable
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
= Total Cover		_____		

Sapling/Shrub Stratum (Plot size: _____)		% Cover	Biotic Crust
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
= Total Cover		_____	

Herb Stratum (Plot size: _____)		% Cover	Biotic Crust
1.	<i>Festuca sp.</i>	40	
2.	<i>Plantain sp.</i>	40	
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
= Total Cover		_____	

Woody Vine Stratum (Plot size: _____)		% Cover	Biotic Crust
1.	_____	_____	_____
2.	_____	_____	_____

% Bare Ground in Herb Stratum		% Cover of Biotic Crust
_____	_____	

Remarks:	
Number of Dominant Species _____ (A) Total Ave OBL, FACW, or FAC: _____ Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (AB)	

Prevalence Index worksheet:	
Total % Cover of:	Multiply by:
OBL species _____	x1 = _____
FACW species _____	x2 = _____
FAC species _____	x3 = _____
FACU species _____	x4 = _____
UPL species _____	x5 = _____
Column Totals: _____ (A)	_____ (B)
Prevalence Index = B/A = _____	

Hydrophytic Vegetation Indicators:	
_____	Dominance Test is >50%
_____	Prevalence Index is >3.0
_____	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
_____	Problematic Hydrophytic Vegetation ¹ (Explain)

% Indicators of hyaline soil and wetland hydrology must be present, unless disturbed or problematic.	
_____	Yes _____ No _____

Hydrophytic Vegetation Present?	
_____	Yes _____ No _____

Arid West - Version 2.0

Sampling Point

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

Wetland Hydrology Indicators:

Bottom Observations (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
___ Surface Water (A1)	___ Salt Crust (B11)	___ Water Marks (B1) (riverine)	
___ High Water Table (A2)	___ Bolds 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)	___ Outcrops Rhizosphenes along Living Roots (C3)	___ Dry-Season Water Table (C2)	
___ Drift Deposits (B3) (nonriverine)	___ Presence of Reduced Iron (C4)	___ Crayfish Burrows (C5)	
___ Surface Soil Cracks (B6)	___ Recent Iron Reduction in Tilled Soils (C5)	___ Saturation Visible on Aerial Imagery (C6)	
___ Inundation Visible on Aerial Imagery (B7)	___ Thin Mud Surface (C7)	___ Shallow Aquifers (C3)	
___ Water-Scaped Leaves (B8)	___ Other (Explain in Remarks)	___ FAC-Neutral Test (C8)	
Field Observations:		Wetland Hydrology Present? Yes ___ No ___	
___ Surface Water Present?	Yes ___ No ___	___	
___ Water Table Present?	Yes ___ No ___	___	
___ Saturation Present?	Yes ___ No ___	___	
(includes seepage lines)			
Describe Records Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Arld West - November 20

long.

NEW classification:

(In any answers in Remarks.)

1

general integrated parish

Abstract	Keywords	Classification	Comments

Herb Stratum (Plot size: _____) #1000 Cover

1. *Festuca arundinacea* 40 40 40

2. *Carex* 300 300 300

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low part in Flood
1550 part

WETLAND DETERMINATION DATA FORM - Arid West Region

Project Name: Schmidt City/County: Kittitas Sampling Date: 10-7-21
 Applicant/Owner: SWC Status: WA Sampling Point: DPT#50
 Investigator(s): SWC Section, Township, Range: S32 T8N R14E
 Landform (hilltops, terraces, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Let: _____ 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 drainage / hydrology significantly disturbed? Yes ☒ No _____
 Are vegetation / soil or hydrology naturally problematic? Yes ☒ No _____ (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 ☒ No _____
 Hydric Soil Present? Yes ☒ No _____
 Wetland Hydrology Present? Yes ☒ No _____
 Remarks: grazed irrigated pasture

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Indicator Species	Disturbance Test Worksheet
1. _____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	Prevalence Index Worksheet
Total % Cover of: _____ Multiply by: _____ OBL species x1 = _____ FACW species x2 = _____ FAC species x3 = _____ UPL species x4 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: - Difference Test is >50% - Prevalence Index is <3.0 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) - Problematic Hydrophytic Vegetation (Explain) _____ - Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Herb Stratum (Plot size: _____)	_____	_____	_____
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____	_____	_____
Remarks: _____			

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
 Depth (inches): 14 Matrix: Fe-Fa Redox Features: Fe-Fa Texture: clay Remarks: _____
 Color (moist): _____ Color (dry): _____
 Type: C-Concentration, D-Disturbance, FFL-Reduced Matrix, C8-Covered or Coated Sand Grains. Location: PL-Pore Linings, M-Matrix.
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
 - Histosol (A1) _____
 - Sandy Redox (S8) _____
 - Shipped Matrix (S8) _____
 - Loamy Mucky Mineral (F1) _____
 - Loamy Clayed Matrix (F2) _____
 - Degraded Matrix (F3) _____
 - Stratified Layers (A4) _____
 - Hydrogen Sulfide (A4) _____
 - 1 cm Muck (A5) (LRR C) _____
 - Thick Dark Surface (A11) _____
 - Dark Dark Surface (A12) _____
 - Sandy Mucky Mineral (S4) _____
 - Sandy Stained Matrix (S4) _____
 - Redox Dark Surface (F8) _____
 - Redox Depressions (F8) _____
 - Vernal Pools (F9) _____
 - Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
 Restorative Layer (if present): _____
 Type: _____
 Depth (inches): _____
 Hydric Soil Present? Yes ☒ No _____
 Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:
 Primary Indicators (Indicators of one required; check all that apply):
 - Surface Water (A1) _____
 - High Water Table (A2) _____
 - Saturation (A3) _____
 - Water Marks (B1) (Noninvasive) _____
 - Sediment Deposits (B2) (Noninvasive) _____
 - Drift Deposits (B3) (Noninvasive) _____
 - Surface Soil Cracks (B6) _____
 - Inundation Visible on Aerial Imagery (B7) _____
 - Water-Stained Leaves (B9) _____
 - Soil Crust (B11) _____
 - Biotic Crust (B12) _____
 - Aquatic Invertebrates (B13) _____
 - Hydrogen Sulfide Odor (C1) _____
 - Oxidized Rhizospheres along Living Roots (C3) _____
 - Presence of Reduced Iron (C4) _____
 - Recent Iron Reduction in Tilled Soils (C6) _____
 - Thin Muck Surfaces (C7) _____
 - Other (Explain in Remarks) _____
 Secondary Indicators (2 or more required):
 - Water Marks (B1) (Invasive) _____
 - Sediment Deposits (B2) (Invasive) _____
 - Drift Deposits (B3) (Invasive) _____
 - Drainage Patterns (B10) _____
 - Dry-Season Water Table (C2) _____
 - Crayfish Burrows (C5) _____
 - Saturation Visible on Aerial Imagery (C8) _____
 - Shallow Aquifers (D3) _____
 - FAC-Neutral Test (D5) _____
 Field Observations:
 - Surface Water Present? Yes ☒ No _____
 - Water Table Present? Yes ☒ No _____
 - Saturation Present? Yes ☒ No _____
 - Includes capillary fringe? Yes ☒ No _____
 - Depth (inches): _____
 - Wetland Hydrology Present? Yes ☒ No _____
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____
 Remarks: _____

Project/Site: Schmidt City/County: Kittitas Sampling Date: 10-7-21
 Applicant/Owner: _____ State: WA Sampling Point: DP 451
 Investigator(s): SW Smith Section, Township, Range: S 32 T 19 N R 14 E
 Local relief (concave, convex, none): _____ Slope (%): _____
 Latitude: _____ Longitude: _____ Datum: _____
 Subregion (LRR): _____ NW1 classification: _____
 Soil Map Unit Name: _____
 Are climatic / hydrologic conditions on the site typical for the time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Yes ☒ No _____
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?		Yes		No		Is the Sampled Area within a Wetland?	Yes		No	
Hydric Soil Present?	Yes		No		No					
Wetland Hydrology Present?	Yes		No		No					
Remarks: grassland, irregularly flooded pasture										

Tree Stratum (Plot size: _____)		Deciduous Indicator		Dominance Test worksheet:	
1.	2.	Absolute % Cover	Relative % Cover	Number of Dominant Species	That Are OBL, FACW, or FAC:
1.	2.	_____	_____	_____	(A) <u>2</u>
3.	4.	_____	_____	_____	(B) <u>2</u>
5.	6.	_____	_____	_____	(AB) <u>1/4</u>
Shrub/Strub Stratum (Plot size: _____)		Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	
1.	2.	_____	_____	Prevalence Index worksheet:	
3.	4.	_____	_____	Total % Cover of:	Multiply by:
5.	6.	_____	_____	OBL species	x 1 =
Herb Stratum (Plot size: _____)		Total Cover		FACW species	
1.	2.	_____	_____	FAC species	x 2 =
3.	4.	_____	_____	FACU species	x 3 =
5.	6.	_____	_____	URL species	x 4 =
Woody Vine Stratum (Plot size: _____)		Total Cover		URL species	
1.	2.	_____	_____	Column Totals:	(A) _____
3.	4.	_____	_____	Prevalence Index = B/A = _____	
5.	6.	_____	_____	Hydrophytic Vegetation Indicators:	
7.	8.	_____	_____	Dominance Test is >50%	
Meady/Vine Stratum (Plot size: _____)		Total Cover		Prevalence Index is ≤3.0'	
1.	2.	_____	_____	Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)	
3.	4.	_____	_____	Problematic Hydrophytic Vegetation' (Explain)	
% Base Ground in Herb Stratum		% Cover of Blotic Crust		'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Yes _____ No _____		Hydrophytic Vegetation Present? _____			

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Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)	
Primary Indicators (Minimum of one required; check all that apply)			
Surface Water (A1)	Self-Crust (B11)	Water Marks (B1) (Rivertine)	
High Water Table (A2)	Bootic Crust (B12)	Sediment Deposits (B2) (Rivertine)	
Saturated (A3)	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Rivertine)	
Water Marks (B1) (Nonrivertine)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)	
Sediment Deposits (B2) (Nonrivertine)	OdORIZED Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)	
Drift Deposits (B3) (Nonrivertine)	Presence of Reduced Iron (C4)	Clayfin Burrows (C5)	
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Soils (C5)	Saturation Visible on Aerial Imagery (C9)	
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)	
Water-Borned Larvae (B8)	Other (Explain in Remarks)	FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes _____ No _____	
Surface Water Present?	Yes _____ No _____		
Water Table Present?	Yes _____ No _____		
Saturation Present?	Yes _____ No _____		
Includes Contingency Note			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

low spot in it ditch

WETLAND DETERMINATION DATA FORM - Acid West Region

Project/Site: Schmidt Chy/County: Kittitas Sampling Date: 10-7-21
Applicant/Owner: WPA Sampling Point: WPA 52
Investigator(s): SD Schmidt State: WA Section, Township, Range: S 32 T 18 N R 14 E
Landform (hilltop, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LPR): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NW classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are vegetation / hydrology / soil significantly disturbed? Yes ☒ No ☐ Are 'Normal Circumstances' present? Yes ☒ No ☐
Are vegetation / soil / hydrology naturally problematic? (If needed, explain any errors in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☒ No ☐
Remarks: grazed irrigated pasture

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Indicator Species?	Stability?	Status
1. _____	_____	_____	_____	(A)
2. _____	_____	_____	_____	(B)
3. _____	_____	_____	_____	(AB)
4. _____	_____	_____	_____	

Savanna/Shrub Stratum (Plot size: _____)

1. _____	2. _____	3. _____	4. _____	5. _____	6. _____	7. _____	8. _____
Total % Cover of: _____ Multiply by: _____							
FACW species x1 = _____							
FAC species x2 = _____							
FACU species x3 = _____							
UPL species x4 = _____							
UPL species x5 = _____							
Column Totals: (A) _____ (B) _____							

Herb Stratum (Plot size: _____)

1. _____	2. _____	3. _____	4. _____	5. _____	6. _____	7. _____	8. _____
Prevalence Index = B/A = _____							
Hydrophytic Vegetation Indicators:							
Dominance Test is >50% _____							
Prevalence Index is >3.0 _____							
Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) _____							
Problematic Hydrophytic Vegetation? (Explain) _____							

Woods/Vine Stratum (Plot size: _____)

1. _____	2. _____	3. _____	4. _____	5. _____	6. _____	7. _____	8. _____
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.							
Hydrophytic Vegetation Present? Yes ☒ No ☐							

% Bare Ground in Herb Stratum _____ % Cover of Blotic Crust _____

Remarks: none

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth (inches): 14 (10/11/21) Color (Munsell): 5YR 5/1 Texture: clayey Structure: blocky Remarks:
Type: C-Depletion, R-Reduced Matrix, CS-Covered or Coated Sand Grains. Location: PL-Port Linking, M-Mark.
Hydro Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
Hiloid (A1) _____ Sandy Redox (S8) _____
Black Muck (A2) _____ Shaded Matrix (S9) _____
Black Muck (A3) _____ Loamy Mucky Matrix (F1) _____
Stratified Layers (A4) _____ Loamy Gleyed Matrix (F2) _____
1 cm Muck (A5) (LRR D) _____ Dispersed Matrix (F3) _____
Thick Dark Surface (A11) _____ Redox Dark Surface (F6) _____
Thick Dark Surface (A12) _____ Depleted Dark Surface (F7) _____
Sandy Mucky Matrix (S1) _____ Redox Depositions (F8) _____
Sandy Gleyed Matrix (S4) _____ Vernal Pools (F9) _____
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydro Soil Present? Yes ☒ No ☐
Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:
Surface Water (A1) _____
High Water Table (A2) _____
Saturation (A3) _____
Water Marks (B1) (Nonriverine) _____
Sediment Deposits (B2) (Nonriverine) _____
Drift Deposits (B3) (Nonriverine) _____
Inundation Visible on Aerial Imagery (B7) _____
Water-Saturated Leaves (B9) _____
Other (Explain in Remarks) _____
Secondary 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) _____
Crackling Burrows (C3) _____
Saturation Visible on Aerial Imagery (C9) _____
Shallow Aquifers (C1) _____
FAC-Neutral Test (C6) _____
Field Observations:
Surface Water Present? Yes ☒ No ☐ Depth (inches): _____
Water Table Present? Yes ☒ No ☐ Depth (inches): _____
Saturation Present? Yes ☒ No ☐ Depth (inches): _____
Includes auxiliary things: _____
Describe Recorded Data (stream gauges, monitoring well, aerial photos, previous inspections), if available:
Remarks: none

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Schmidt City/County: Kittitas Sampling Date: 10-7-21
 Applicant/Owner: SWC Small State: WA Sampling Point: DDP 53
 Investigator(s): SWC Small Section, Township, Range: S32 T18N R14E
 Landform (hilltops, terraces, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NW classification: _____
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are vegetation/soil/hydrology significantly disturbed? Yes ☒ No _____
 Are vegetation/soil/hydrology naturally problematic? Yes ☒ No _____

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

Hydrophytic Vegetation Present? Yes ☒ No _____
 Hydric Soil Present? Yes ☒ No _____
 Wetland Hydrology Present? Yes ☒ No _____
 Remarks: grazed irrigated pasture

VEGETATION - Use scientific names of plants.

Item	Stratum (Plot size)	Abundance % Cover	Dominant Indicator Species
1.			
2.			
3.			
4.			
Sediment/Stratum (Plot size) _____ = Total Cover _____			
1.			
2.			
3.			
4.			
5.			
6.			
Herb Stratum (Plot size) <u>Festuca ovina</u> <u>Phacelia</u> = Total Cover <u>75%</u>			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Woody Vine Stratum (Plot size) _____ = Total Cover _____			
1.			
2.			
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____			
Remarks: _____			

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
 Depth (inches): 14 Matrix: 1/4 3/3 Body Features: 1/4 3/3 Location: 1/4 3/3
 Color (moist): 1/4 3/3 Color (dry): 1/4 3/3 Loc: 1/4 3/3
 Type: C-Concentration D-Deposition RM-Reduced Matrix CB-Covered or Coated Sand Grains
 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
 Histic (A1) _____ Sandy Redox (S1) _____
 Histic Epipedon (A2) _____ Shaded Matrix (S2) _____
 Black Muck (A3) _____ Loamy Mucky Matrix (F1) _____
 Hydrogen Sulfide (A4) _____ Loamy Gleyed Matrix (F2) _____
 Stratified Layers (A5) (LRR C) _____ Depleted Matrix (F3) _____
 1 on Muck (A6) (LRR D) _____ Redox Dark Surface (F4) _____
 Depleted Below Dark Surface (A11) _____ Depleted Dark Surface (F5) _____
 Thick Dark Surface (A12) _____ Radiol Deposits (F6) _____
 Sandy Mucky Mineral (S1) _____ Vernal Pools (F9) _____
 Sandy Gleyed Matrix (S4) _____
 Radiol Layer (if present): _____
 Type: _____
 Depth (inches): _____
 Remarks: _____
 Hydric Soil Present? Yes ☒ No _____

HYDROLOGY

Wetland Hydrology Indicators:
 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 (B8) _____
 Field Observations:
 Surface Water Present? Yes ☒ No _____
 Water Table Present? Yes ☒ No _____
 Saturation Present? Yes ☒ No _____
 Includes capillary fringe? Yes ☒ No _____
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Remarks: _____
 Secondary 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 (C3) _____
 Saturation Visible on Aerial Imagery (C8) _____
 Shallow Aquifers (C3) _____
 FAC-Neutral Test (C5) _____
 Wetland Hydrology Present? Yes ☒ No _____

Select or search for a feature in the map

Parcel#, Name, Situs

☐ Apply a search distance

500 Feet

Addressee Layer

Mailing Address

Forme

Comma-separated values (CSV)

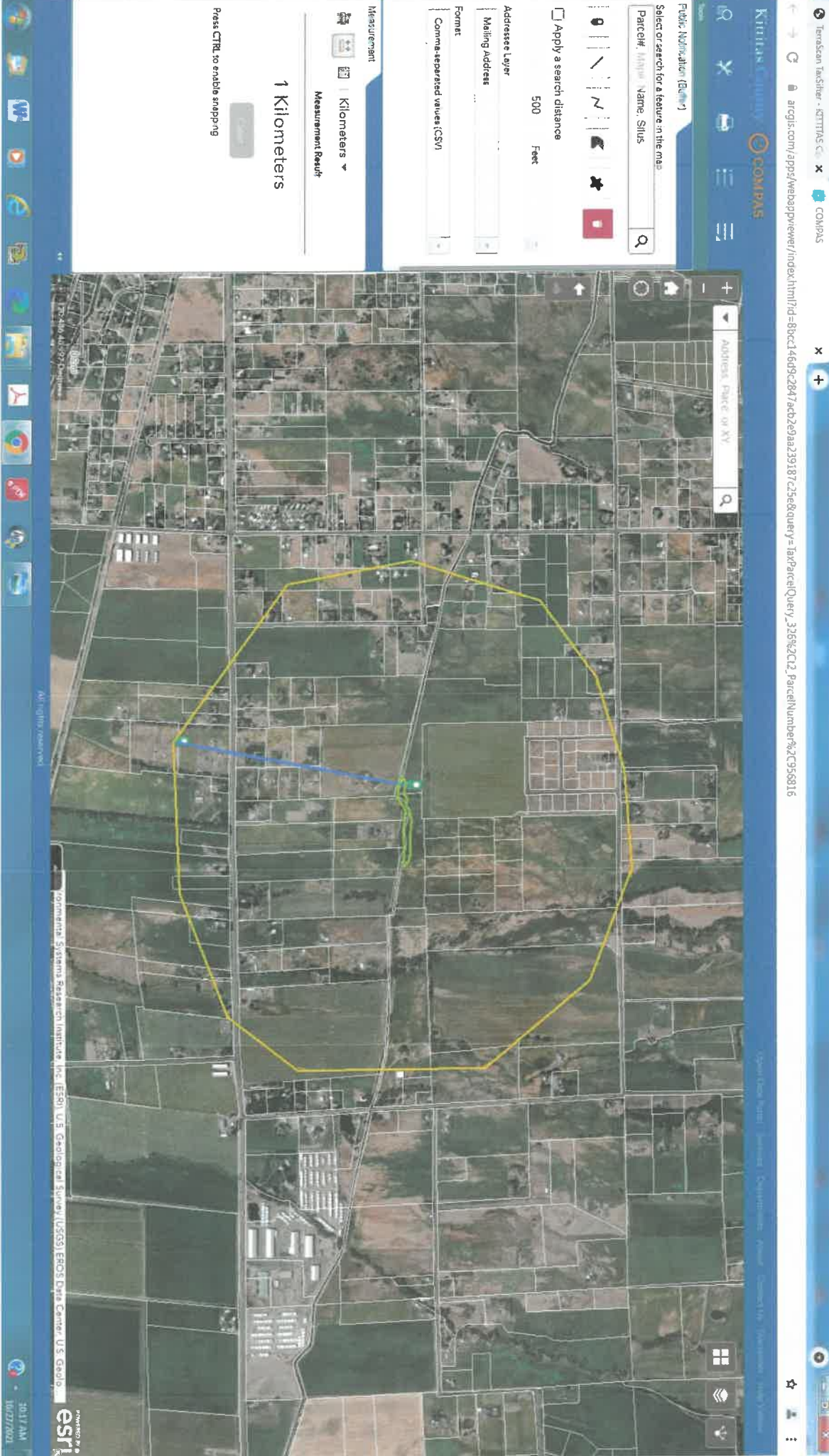
Measurement

Kilometers ▾

Measurement Result

1 Kilometers

Press CTRL to enable snapping



10/13/2024 8:56:16 AM

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- BirdsEye Demo

BirdsEye Imagery

Birdseye Imagery

 Type here to search

Snow Overlays

 Birdseye Imagery

47°F Mostly cloudy  6:36 AM
10/13/2021

Water Quality Atlas Map

Legend Filter Zoom Tools

Home Add/Remove Map Data

My Maps Print Share About

Basic

Drawing

Other



Usage:

Click on map to add measure points. Double-click to finish.

Unit

Feet

Distance

1,742.98 ft

New measurement



Assessed Water/Sediment Filter Applied Clear Filters

Find	Listing ID	Assessment Unit ID	Category	Medium	Parameter	Details
4	66746	170200011202_01_01	5	Water	Dissolved Oxygen	View
4	11253	170200050203_01_01	5	Water	Temperature	View
4	42784	170200050203_01_01	5	Water	Dissolved Oxygen	View

Show 5 entries Showing 1 to 5 of 4,548 entries

First Previous Next Last