

Sewall Wetland Consulting, Inc.

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March 11, 2023

Pat Deneen Teanaway Ridge LLC 1890 Nelson Siding Road Cle Elum, Washington 98922

RE: Critical Area Report – Tax Parcel #346534 & 19132

Unincorporated Kittitas County, Washington

SWC Job #19-157

1.0 INTRODUCTION

This report describes our observations of jurisdictional wetlands, streams and buffers on Tax Parcel #346534 & 19132, located east of the City of Cle Elum and south of SR 10 near its junction with SR97 in unincorporated Kittitas County, Washington (the "site").



Above: Vicinity Map of the site.

Specifically, the site is an 86.58 acre, irregular shaped property located in a portion of Section 4, Township 19 North, Range 16 East of the W.M. in Kittitas County Washington. The site is bordered by the Burlington Northern railroad tracks on the north (located just south of SR 10), a single family parcel, which is part of a four lot short plat to the west containing a man-made pond. The remaining site boundaries are defined by the Yakima River along the east, south, and portions of the western side of the site as well as undeveloped forest land.



Above: Aerial photograph of the site.

The site consists of an area on the north containing several outbuildings as well as a single-family home and the foundations of old cabins which have been removed since our 2009 study. This area is characterized by landscaped areas around the home as well as a large grass field with the structures located around the perimeter of the field. This area also contains the previously approved community sites septic systems as well as a community well.

South of this area and separated by a wetland and associated Type F stream, is an old campground area with cleared areas, utility hookups, gravel and dirt roads and camping sites, as well as open campfire areas, a paved basketball court and other recreational areas. This area is accessed by a gravel road with a bridge over the stream and wetland from the east. A gravel road leads through the campground to the east along a northern

reach of the Yakima River accessing an old camping and beach area located along the southeast portion of the site. The site extends to the south of the southern channel of the Yakima River. However, no site work was conducted for this study south of the northern ordinary high water mark of the northern channel of the Yakima River.

It should be noted two main channels of the Yakima River pass through the site around a large forested island of land. These channels have been depicted on the attached map as the Northern Channel and the Southern Channel of the Yakima River.

2.0 METHODOLOGY

2.1 Wetland Delineation Methods

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site in October of 2007, November of 2008 and January of 2009. The sites wetlands and stream ordinary high water marks were reflagged in October of 2019. The site was then inspected in June of 2022 and all of the delineations remain the same as the 2019 delineation. 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 Kittitas County 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.

2.2 Wetland Rating Methods

The wetlands on the site were rated using the 2014 Washington State Department of Ecology Washington State Wetland Rating System for Eastern Washington, 2014 Update dated June 2014 Publication No. 14-06-018,.

2.3 Ordinary High Water Mark Delineation Methods

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

2.4 Wetland and Stream Location Methods

Following delineations of wetlands on the site, the flags were surveyed by Encompass Engineering and transferred to the site survey (see attached).

3.0 OBSERVATIONS

3.1 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, the Washington State Department of Natural Resources (WADNR) FPARS stream mapping website, the Kittitas County Mapsifter website with Wetland layers, and the NRCS soil mapping website.

3.1.1 Soil Survey

According to data on file with the NRCS Soil Mapper website, the site contains two (2) soil types. The two soil types encountered include Xerofluvents 0%-5% slopes (map unit #205) and Patnish-Mippon-Myzel complex, 0%-3% slopes (map unit #208).



Above: NRCS Soil Map of the area of the site.

Xerofluvents comprise approximately 81% of the site and include all those areas south of the wetland/slough that passes through the site. These soils are found on floodplain and stream terraces with the parent material being alluvium. This soil type is considered somewhat excessively drained with a seasonal high water table of -36". However, in this area this soil type floods frequently due to its proximity to the Yakima River as well as low lying topography. Xerofluvents are not considered hydric or wetland soils.

Patnish-Mippon-Myzel complex

This soil type is a moderately well drained ashy loam formed in alluvium, often times in floodplain areas. The water table is typically found at a depth of 36"-60" below the surface, with occasional flooding. This soil complex, as well as the individual soil series comprising this complex, are not considered hydric or wetland soils.

3.1.2 National Wetlands Inventory (NWI)

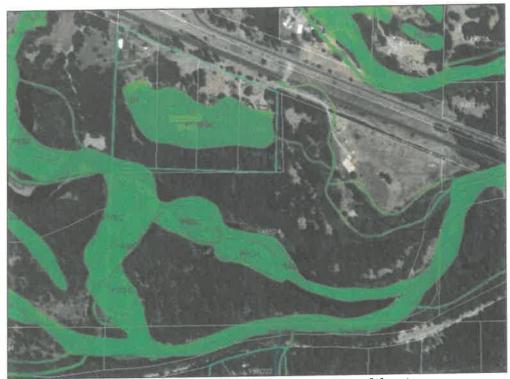
According to the NWI map for the site, there is forested wetland located on the south side of the northern channel of the Yakima River on the site. Several ditch-like forested wetland areas are depicted going through the site in the general area of the site's wetlands. The excavated pond to the north of the site is depicted as an unconsolidated bottom excavated water body (PUBHx). No wetlands or streams are depicted within the northern study area of the site on this map. The NWI map does not accurately depict the wetlands we identified in this study.



Above: National Wetlands Inventory Map of the site.

3.1.3 Kittitas County Mapsifter - Wetland Layer

The Kittitas County Mapsifter website depicts wetlands along the south side of the northern reach of the Yakima River on the site in the same configuration as the NWI map.



Above: Kittitas County wetland mapping of the site.

3.1.4 WADNR FPARS website

According to the WADNR FPARS website with stream types layers activated, the Yakima River is a Type S water and the northern channel of the Yakima is depicted as a Type F stream. The small stream that passes from west to east along the north side of the site within Wetlands A & AA is not depicted in this mapping.



Above: WADNR water typing website map of the site.

3.1.5 WDFW Priority Habitats and Species Maps

The WDFW Priority Habitats and Species mapping for the site depicts the same wetland shown on the NWI map along the Yakima River, as well as listing numerous fish species utilizing the Yakima River to include west slope cutthroat trout, coho salmon, dolly varden trout, spring and summer chinook salmon, bull trout, summer steelhead, and rainbow trout. In addition, the site is located within a Township noted to contain northern spotted owl and the gray wolf.



Above: WDFW Priority Habitats and Species mapping for the site.

3.1.6 Yakima River PUD Critical Areas Report, February 26, 2009 & December 2019.

In February of 2009, Sewall Wetland Consulting issued a Critical Areas Report for the Yakima PUD project. This was reviewed by WDFW and WADOE and went to hearing at the county level. At that time the wetlands on-site were classified as a Category II wetlands. The Yakima River was acknowledged as a Shoreline of the state and the stream passing through Wetlands A & AA was considered a Type 2 below the road crossing, and Type 3 above the crossing. The December 2019 report was an update of this previous report with no changes.

3.2 Field observations

3.2.1 Upland Areas outside of Wetlands and Streams

As previously described, the north end of the site consists of several outbuildings along with a single-family residence and the infrastructure that supports them. An old basketball court is also located on the site. The area on the east is generally characterized by a mowed grass pasture. The pasture is vegetated with a mix of fescue (Festuca spp.) and quackgrass (Agropyron repens) as well as scattered weeds such as knapweed (Centaurea spp.) and cheatgrass (Bromus tectorum). A single apple tree is found on the south side of the pasture area along the wetland/slough. There are also large black cottonwoods (Populus balsamifera) as well as red alders (Alnus rubra) and

ponderosa pines (*Pinus ponderosa*) located along the sloping banks of the wetland/slough. This area retains a shrub strata comprised primarily of snowberry (*Symphocarpos albus*), hawthorn (*Crateagus* spp.), Oregon grape (*Berberis nervosa*), and clustered rose (*Rosa pisocarpa*).

The foundations of the old cabins along the eastern side of the site fall within wetland or stream buffers are of low functional value due to past development and conversion to roads, lawn and pasture.

The forested western side of the site contains an abandoned campground area that is generally vegetated with an open canopy forest of cottonwood, alder and ponderosa pine with little if any shrub strata. Some areas on the north are mowed lawn/grass areas. Vegetation in the understory consists of scattered snowberry, rose and hawthorn with a grass cover of mixed weeds, fescue and quackgrass. The campground area contains small gravel/dirt roads and bare areas where campsites are located.

Soil pits excavated within the upland areas of the site generally revealed a gravelly silt loam with a color of 10YR 3/3 with no hydric characteristics. Soils within upland areas were dry during all site visits.

3.2.2 Wetlands & Streams

The site contains two wetland divided by a road crossing and control structure. A small stream flows through these wetlands entering the northwest corner of the site from the excavated pond located off-site to the northwest. Flow within this feature flows from northwest-southeast before draining into a larger area of wetland located within a historic channel meander of the Yakima River along the south side of the site as depicted on the attached Existing Conditions Map.

Wetland A

Wetland A consists of the large wetland and stream complex south of a bridge with a control structure. The entire wetland feature to the south of the bridge was flagged with flags A1-A83. The wetland feature to the north of the bridge (Wetland AA) was flagged with flags AA1-AA41 and will be referred to as Wetland AA. This wetland is separated by a barrier at the road crossing that allows only one directional flow out of Wetland AA top the south into Wetland A, and therefore is considered a separate wetland. Flags A83-A112 are the OHWM of the Yakima River west of the sites wetlands.

This wetland includes forested, scrub-shrub, and emergent wetland classes in and around a fish bearing tributary of the Yakima River.

The wetland is vegetated primarily with a forested plant community on the east dominated by large black cottonwoods surrounding the stream. This area has a shrub layer dominated by red-osier dogwood (*Cornus stolonifera*), sitka alder (*Alnus sitchensis*), pacific willow (*Salix lasiandra*), as well as a dense community of reed canary grass (*Phalaris arundinacea*) with scattered clumps of an unidentified sedge (*Carex spp.*).

Soil pits excavated within the outer edge of this wetland revealed a silt loam with varying colors. Some pits were found to have a 16" layer of silt loam with a soil color of 10YR 3/2 with common, medium, distinct redoximorphic concentrations. Other areas of the wetland had soils with a soil color of 2.5Y 2.5/1 with common, medium, distinct redoximorphic concentrations. Soils within this wetland varied from saturation at -12" to surface inundation.

Using the US Fish and Wildlife Wetland Classification Method (Cowardin et al. 1979), Wetland A/B contains areas that would be classified as PEM1E (palustrine, emergent, persistent, saturated), PSS1C (palustrine, scrub-shrub, broad leaved deciduous, seasonally flooded), and PFO1C (palustrine, forested, broad leaved deciduous, seasonally flooded).

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 "Riverine" wetland, this wetland scored a total of 21 points with 8 for habitat. This indicates a Category II wetland.

Wetland A is located within the Rural Conservancy area of the Shoreline. Kittitas County Municipal Code Chapter 17B.05.020G, Category II wetlands with a moderate land use such as a single family home or shop would have a 150' buffer.

178.50.020G-1. Wetland Buffers for Wetlands in Shoreline Jurisdiction

Wetleno Cotogory	Lora Interesty Use and Development	Low and Moderate Intensity Use and Development*	Savelopment's Use and Davelopment's
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The buffer of Wetland A has an existing gravel road running along its eastern side for portions of the buffer on the north. According to KCC 17B.05.020G.4 (Interrupted Buffer), when a buffer is bisected by a legally established private road, development on the landward side of the road may be allowed if it will not have any detrimental effects to the wetland.

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

The site appears to meet this criteria and development to the east and north of the gravel road may be allowed even though its within the 150' buffer.

Wetland AA

The wetland feature to the north of the bridge (Wetland AA) was flagged with flags AA1-AA41. This feature is separated by a road crossing with a control structure that only allows flow out of the wetland to the south. Therefore, this would <u>not be</u> considered part of the larger Wetland A on the south side of the crossing.

The wetland is vegetated with large areas of reed canary grass, as well as scrub shrub sections with red-osier dogwood, sitka alder and willow.

Soil pits excavated within the outer edge of this wetland revealed a silt loam with a soil color of 10YR 3/1 with common, medium, distinct redoximorphic concentrations. Portions of the wetland contained a sapric muck soils were extended ponding occurs. Soils within this wetland varied from saturation at the surface to 24" of standing water.

Using the US Fish and Wildlife Wetland Classification Method (Cowardin et al. 1979), Wetland A/A contains areas that would be classified as PEM1E (palustrine, emergent, persistent, saturated), and PSS1C (palustrine, scrub-shrub, broad leaved deciduous, seasonally flooded).

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 19 points with 7 for habitat. This indicates a Category II wetland.

Wetland AA appears to be located in a portion of the Rural Conservancy area of the Shoreline. Kittitas County Municipal Code Chapter 17B.05.020G, Category II wetlands with a moderate land use such as a single family home or shop would have a 150' buffer.

178.50.020G-1. Wetland Buffers for Wetlands in Shoreline Jurisdiction

Westend Czeogory	Low Interesty Use and Desclopment	Low and Moderate Intensity Use and Development	Development*
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The buffer of Wetland AA has an existing gravel road running along its eastern side for portions of the buffer on the north. According to KCC 17B.05.020G.4 (Interrupted Buffer), when a buffer is bisected by a legally established private road, development on the landward side of the road may be allowed if it will not have any detrimental effects to the wetland.

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

The site appears to meet this criteria and development to the east and north of the gravel road may be allowed even though it's within the 150' buffer.

Yakima River & Un-named Yakima River Tributary

Yakima River - Type S water

The Yakima River passes through the south side of the site. The Yakima River is considered a Shoreline of the state or a Type S water.

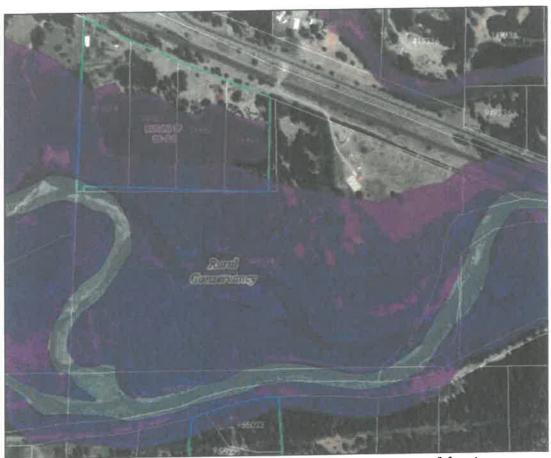
According to the Kittitas County Shoreline Master Program, the Yakima River has a shoreline designation of *Rural Conservancy* in the area of the site. Shoreline waters (Type S) with the Rural Conservancy designation have a 100' buffer measured from the ordinary high water mark of the creek.

Table 5.5-1. Standard Shoreline Buffers (Type S Waters)

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

Near the center of the site the river widens, flow speed decreases and the river turns, with the north side being the inside of the bend. This is an area where flow velocities are low and which is a depositional area for sediments. In this approximate 700' long area, the area above the OHWM slopes gradually to the bank full width in a 25'-50' band. Between bank full width and the distinct upland area of douglas firs and pines, is a transitional sediment bar vegetated with a mix of willows, dogwoods and cottonwoods. The OHWM was found to be at the sloping transition from this gravel bar riparian area to a dry, upland plant community with no evidence of any flooding from the recent event. The vegetation community in this area above the OHWM is distinctly different than that below, and there is no evidence of any flow above this area, even in the recent flood event.

The remaining stretch of the Yakima has a vertical incised bank where the OHWM is clearly below the bank full width and the top of bank. At its easternmost point on the site, the mouth of the un-named Type F tributary enters the Yakima in a band of reed canary grass dominated wetland with a distinct easterly flowing channel. A description of this feature follows;



Above: Kittitas County Shoreline Management mapping of the site.

Un-named Type F tributary water

As previously described, a fish bearing stream is located within the confines of Wetlands A and AA. This feature originates near the northwest corner of the site and appears to be fed by groundwater. Water within this area "ponds" within the center of the wetland north of the road crossing and just west of the existing single-family residence. A control structure is located at the road crossing dividing Wetland A from Wetland AA. Water drops approximately 3'-4' in elevation flowing south into a distinct channel with a narrow riparian wetland. This water flows to the south, and then easterly along the toe of short, steep slope. The channel stays closely to the toe of the slope and then moves more centrally into a wetland area with a meandering, narrow channel surrounded by reed canary grass. This flows approximately 500' to the Yakima River. A review of this area indicates only the mouth of this stream had back flooding from the Yakima during the flood events. The caretaker of the property is a surveyor who observed the January 2009 flooding and he indicated no flooding from the river was backed up into this channel. The location of flood debris and water marks corroborate this observation.

This channel is a distinctly flowing feature from the Yakima, and, has a distinct OHWM from that of the Yakima River and not part of the Shoreline designation given to the Yakima River.

The stream appears to originate from groundwater discharge near the northwest corner of the site. Groundwater within the entire valley is most likely in some way tied to the Yakima River. However, given the distance from the Yakima, it is not clear that this is a groundwater discharge from the Yakima. Groundwater input to this stream is at a point nearly 1,100' north of the closest point of the Yakima River. It is possible this is receiving groundwater from the Younger ditch drainage north of SR 10 in close proximity to this area.

According to KCC 17B.05.020K.1, Type F waters within the Shorleine have a 100' buffer measured from the OHWM.

178.05,920K-1. Aquatic Habitat Conservation Area Buffers for Type F. Np. and Hs Waters

Aquatic Habitat Conservation Area	Standard Cultur William	
Type F Waters	∡C∴ tee¹	
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The buffer of the Type F water has an existing gravel road running along its eastern side for portions of the buffer on the north. According to KCC 17B.05.020K.4 (Interrupted Buffer), when a buffer is bisected by a legally established private road, development on the landward side of the road may be allowed if it will not have any detrimental effects to the habitat area.

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

The site appears to meet this criteria and development to the east and north of the gravel road may be allowed even though its within the 100' buffer.

4.0 Wildlife and Threatened and Endangered Species

4.1 WDFW Priority Habitat Data

As shown in Section 3.1.5 of this report, the WDFW Priority Habitat Maps and associated species specific reports for the area of the site revealed that the area of the site is identified as "Upper Yakima Riparian Area", identified specifically as the area upstream of the mouth of Swauk Creek on the Yakima. The area is identified as including floodplain and wetland complexes along the upper Yakima supporting beaver and other furbearers; wintering bald eagles (10-15), especially in spring and big game use. Additionally, the Yakima River is noted as containing priority fish presence. These species include Spring Chinook, coho salmon, dolly varden/bull trout, rainbow trout, summer steelhead and west slope cutthroat trout.

4.2 Washington Department of Natural Resources Natural Heritage Program

A search was conducted of the WADNR Natural Heritage Information System for any significant features on the site. The WADNR Natural Heritage program records any known observations or known locations of rare plants and high quality ecosystems. The results of the data search of this information revealed no known or recorded rare plants or high quality ecosystems on the site.

4.3 Field Observations

The undeveloped portions of the site (excluding the campground and the developed areas north of Wetland A/B) including the wetland and riparian corridor along the Yakima River are high value habitat. Many species of wildlife utilize this area as it offers nearly all of the common requirements of wildlife including cover, food, water and breeding habitat opportunities. Habitat features of high value found on the site include large logs, several cavity filled snags, areas of open and flowing water, snags, large trees within the forested wetland, cavities within the trees, branched tree crowns for nest building, and rock and brush piles are just some of the features found on the site.

In general, the habitat in the northern developed portion of the site is minimal due to the lack of vegetative cover, close proximity to SR 10 and the active railroad tracks, and mowed character of this area. The campground area to the south and west of the wetland are also of reduced value also due to the lack of as shrub strata and development related to the existing roads and campsites.

Species we noted utilizing the site (from visual observation, tracks, scat or other signs) south of the developed areas and areas immediately adjacent to the site during our site visits include red-tailed hawk, osprey, ring-necked pheasant, ruffed grouse, common

crow, raven, blue heron, mallards, buffleheads, dipper, black capped chickadee, winter wren, turkey, black bear, mule deer, elk, coyote, Douglas squirrel, beaver, raccoon, cutthroat trout, rainbow trout, California quail, kestrel, magpie, European starling, and skunk.

Several bald eagles were observed south of the Yakima within the "island" area in the middle of January 2009. A reconnaissance was conducted to identify any eagle nests on or near the site but none were observed. All eagles were observed to be perching in large trees along the south side of the river. Eagles are commonly seen along this section of the Yakima and to the east towards Ellensburg.

Areas Outside buffers and floodway

As depicted on the attached site plan, there are two large areas on the north side of the site outside the wetlands, streams and buffers as well as he floodway. The usable area outside the wetlands streams and standard buffers 15.3 acres outside the standard buffers and floodway.

As allowed in KCC 17B.05.020K.4 (Interrupted Buffer), when a buffer is bisected by a legally established private road, development on the landward side of the road may be allowed if it will not have any detrimental effects to the habitat area. Taking the existing roads that are on the site that bisect the buffers, this increases the amount of useable area outside buffers and the floodway by 3.73 acres. Using this Code section, the total usable area outside of the standard buffer and outside existing legally established roads in the buffer is 19.08 acres.

5.0 REGULATIONS

In addition to the wetland regulations previously described for wetlands, certain activities (filling and dredging) within "waters of the United States" may fall under the jurisdiction of the U.S. Army Corps of Engineers (USACOE). The USACOE regulates all discharges into "waters of the United States" (wetlands) under Section 404(b) of the Clean Water Act. Wetlands that are hydrologically isolated are not regulated by the USACOE, per the SWANCC and as interpreted by the Corps and EPA in their Regulatory Guidance Letter.

Discharges (fills) into any wetlands that are not considered "isolated" are regulated by the Corps. However, only the Corps can make that determination.

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 esewallwc.com.

Sincerely,

Sewall Wetland Consulting, Inc.

Ed Sewall

Senior Wetlands Ecologist PWS #212



REFERENCES

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Sewall Wetland Consulting, Inc. "Teanaway Ridge LLC- Yakima River PUD Critical Area report. February 26, 2009

USDA NRCS Soil Mapper Website

Kittitas County Code, Title 17A and 17B Critical Areas & Shorelines

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

Washington Department of Ecology – Wetland Rating System for Eastern Washington, 2014 Update dated June 2014 Publication No. 14-06-018,.

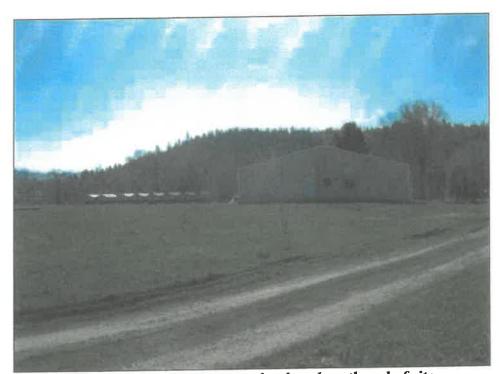
Washington Department of Ecology – Determining the ordinary high water mark on streams in Washington State March 2008 Review Draft. Pub #08-06-001.

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Above: Photographs of the north end of the slough wetland (AA) on north end of site. Below: Looking east across Wetland AA towards residence on north end of site.

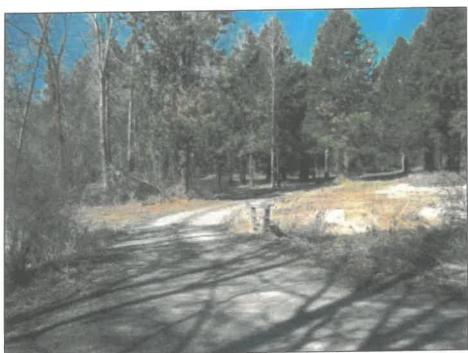




Above: Looking East across developed north end of site.

Below: Looking south on north end of site. Wetland AA on right.





Above: Road crossing of Wetland A and AA looking west into campground area.

Below: Looking north at road crossing of Wetland AA





Above: Vertical standpipe allowing flow to pass under road crossing dividing Wetland

A and Wetland AA

Below: Wetland A looking southeast from road crossing





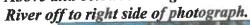
Above: Southeast side of site, well house visible on left. Basketball court visible in center of photograph.







Above and below: looking north along northeast side of site, Wetland A and Yakima







Above: Wetland A on east side of site Below: Existing campground area on west side of site.





Above: Forested upland area on southwest side of site south of campground. Below: Yakima River Looking east at a point south of the campground area.





Above: Looking south across north reach of Yakima River at forested "island" area of







Above: Wetland A

Below: Old gravel road and camping areas along east side of site east of Wetland A.



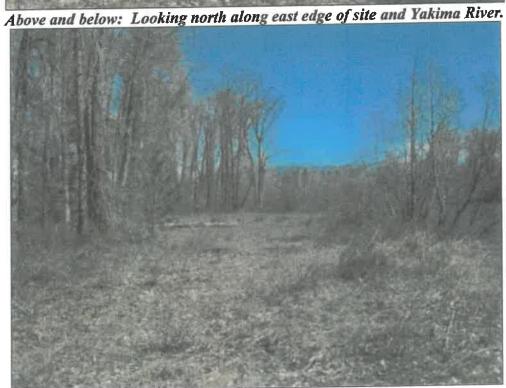


Above: East side of site, old roadbed/camping areas is visible in gravel.

Below: Looking west from east side of site towards Wetland A.









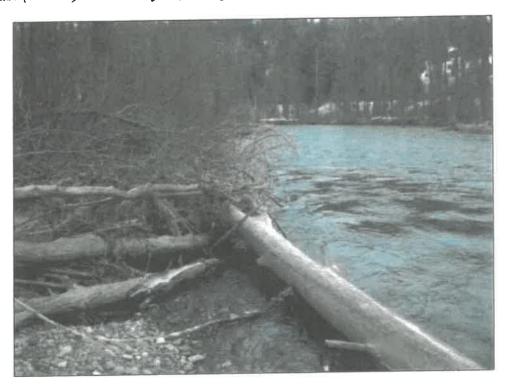
Above: Mouth of Type 3 tributary where it meets the Yakima on 1-21-09 following flooding.

Below: Type 3 water looking westerly through Wetland A/B near north end of site.





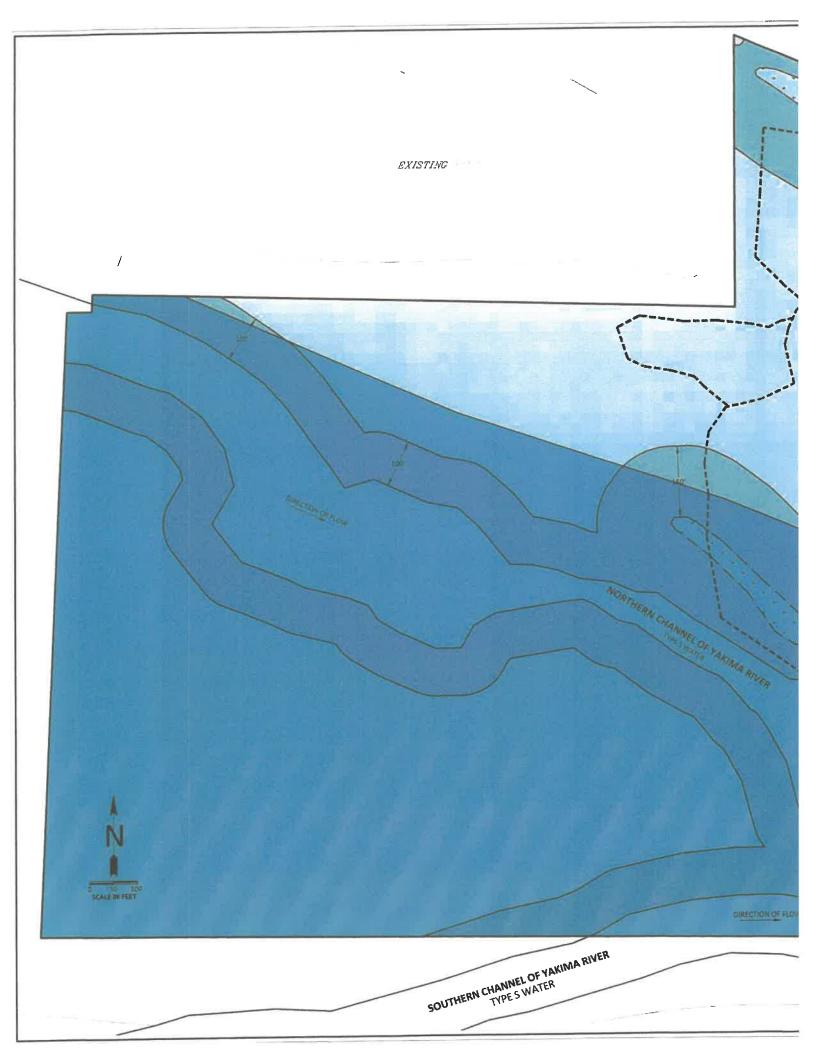
Above and below: views of the north channel of the Yakima river looking west (top) and east (bottom) on January 21, 2009 following flood event.

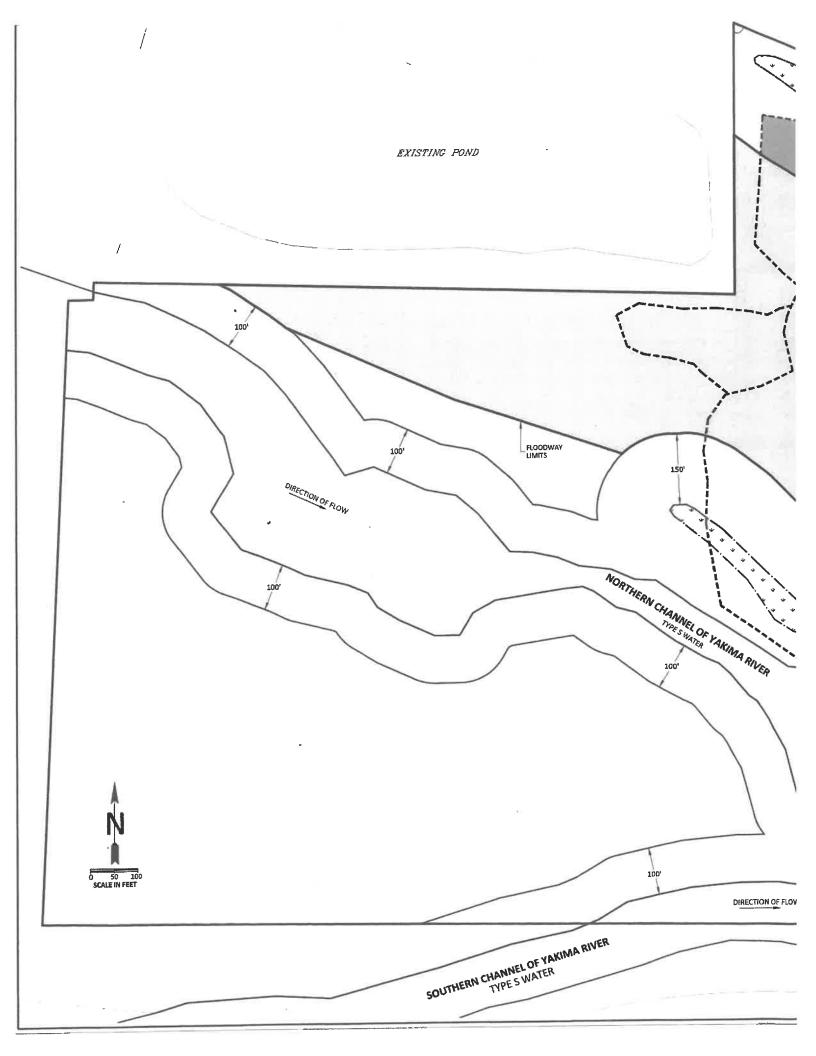




Above and below: Central portion of site along Yakima on 1-21-09. OHWM at snowline on right. A narrow riparian band of dogwood, willow and reed canary grass is below OHWM. Douglas fir is visible in area above OHWM on lower photo.







WETLAND I	ETERMINATIO	N DATA	FORN	- Arid West Region	n	w
Project/Site: Yakıma PUD		ity/County:	K	thins Co	_ Sampling Date: _	10-10-19
•				state: WA	Sampling Point:	Dead
Applicant/Owner:		action Tour	seinin B	lange: 54 T/5	NRIVE	
Investigator(s):						ne (%):
Landform (hillslope, terrace, etc.):			Dricavi	Long:	Dahu	m'
Subregion (LRR):						
Soil Map Unit Name:				NWI classifi		
Are climatic / hydrologic conditions on the site typica	l for this time of yea	? Yes	_ No	(If no, explain in	Remarks.)	/
Are Vegetation, Soil, or Hydrology	significantly d	sturbed?		"Normal Circumstances"		No
Are Vegetation, Soil, or Hydrology	naturally prot	lematic?	lf	needed, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS - Attach site	man showing	sampling	point	locations, transect	s, important fe	atures, etc.
SUMMART OF FINDINGS - Attach site	map showing					
Hydrophytic Vegetation Present? Yes	No	Is the	Sample	d Area	Market	
Hydric Soil Present? Yes	No.		a Wet		No	-
Wetland Hydrology Present? Yes	No					
Remarks:						
VEGETATION No. seientific nomes of	f nlante					
VEGETATION – Use scientific names o	Absolute	Dominant I	ndicato	Dominance Test wor	ksheet:	
Tree Stratum (Plot size:)		Species?			Consider	
1.				That Are OBL, FACW	ar FAC:	(A)
2.				Total Number of Dom	inant	-
3				Species Across All St) (B)
4				Percent of Dominant	Species //	Sent.
		Total Cove	r	That Are OBL, FACW		(A/B)
Sapling/Shrub Stratum (Plot size:	30	1 /	SIL	Prevalence Index wo	orksheet:	
1. Almus sitelians					Multipl	v bv:
2				OBL species		
3				FACW species		
4				FAC species	x3=	
5		Total Cove	r	FACU species		
Herb Stratum (Plot size:)	. بعد خطات			UPL species	x 5 =	
1. Phalm andrew	20		200	Column Totals:	(A)	(B)
2 Cara sys			200	Consulation and and a	ex = B/A =	
3			-	Hydrophytic Vegeta		
4			-	Dominance Test		
5			\vdash	Prevalence Index		
6				Morphological Ac	laptations¹ (Provide	supporting
7				data in Remai	rks or on a separate	sheet)
8		Total Cove		Problematic Hydr	ophytic Vegetation ¹	(Explain)
Woody Vine Stratum (Plot size:)		1 DISH COVE	ľ			
1.				¹Indicators of hydric s be present, unless dis	oil and wetland hyd	rology must
2.				be present, unless de	sturbed or problema	.uc.
		Total Cove	r	Hydrophytic		
% Bare Ground in Herb Stratum	% Cover of Blotic Cr	ust		Vegetation Present?	/es No	
70 0010 0.00110 111110	000000					
Remarks:						
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W

SOIL					_		Sampling Point:
Profile Desc	rintion: (Describe t	o the depth ne	eded to document ti	e indicator	or cor	firm the al	psence of Indicators.)
	Matrix		Redox Feat				
Depth (inches)	Color (moist)	% 0	Color (moist) %	Type'	Lbc		ture Remarks
1.00	101/2/2		Comm and a	But		300	the
16	10110				+		
					-		
		7			+		
					\perp		
					-		
					_		
in a c-C	encontration D=Denk	etion RM=Red	luced Matrix, CS=Cov	red or Coate	d San	d Grains.	² Location: PL=Pore Lining, M=Matrix.
Huntele Soll	Indicators: (Applica	ble to all LRR	s, unless otherwise i	oted.)		Ind	icators for Problematic Hydric Soils*:
-			Sandy Redox (S5				1 cm Muck (A9) (LRR C)
Histosol	•		Stripped Matrix (S	E/			2 cm Muck (A10) (LRR B)
	oipedon (A2)		Loamy Mucky Min				Reduced Vertic (F18)
	istic (A3)		Loappy Gleyed Ma				Red Parent Material (TF2)
	en Sulfide (A4)		Depleted Matrix (F			_	Other (Explain in Remarks)
	Layers (A5) (LRR C	, .	Redox Dark Surfa				
	ick (A9) (LRR D)	./A14\	Depleted Dark Su				
	d Below Dark Surface	(A11)	Redox Depression		b5	³ Inc	dicators of hydrophytic vegetation and
	ark Surface (A12)		Vernal Pools (F9)	a (. s)			wetland hydrology must be present,
	Aucky Mineral (S1)	•					inless disturbed or problematic.
	eleyed Matrix (S4)				_		
	Layer (if present):			1			
Type:				1 1	- 1	Line	ric Soil Present? Yes No
Depth (in	ches):		•		_	riyo	IIIC DOIL LIGACITE 1 103 110
Remarks:					- 1		
				1			
				1		1	
				1			
					-		
HYDROLO	GY						
				-	-		
	drology indicators:		or the state of th	1 1			Secondary Indicators (2 or more required)
Primary Indic	cators (minimum of or	ne required, ch		1	_		
Surface	Water (A1)		Salt Crust (B11)				Water Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Crust (B12	r i			Sediment Deposits (B2) (Riverine)
Saturation			Aquatic Inverteb				Drift Deposits (B3) (Riverine)
	larks (B1) (Nonriveri	ne)	Hydrogen Sulfid	Odor (C1)			Drainage Patterns (B10)
	nt Deposits (B2) (Non		Oxidized Rhizos	heres along	Living	Roots (C3) Dry-Season Water Table (C2)
	posits (B3) (Nonriver		Presence of Red				Crayfish Burrows (C8)
	Soil Cracks (B6)		Recent Iron Red		199	(C6)	Saturation Visible on Aerial Imagery (C9)
	ion Visible on Aerial Ir	nagani (B7)	Thin Muck Surfa				Shallow Aquitard (D3)
		nagory (Dr)	Other (Explain in				FAC-Neutral Test (D5)
	tained Leaves (B9)		Other (Explain ii	(Kernarka)	-	-	
Field Obser			1				
Surface Wat	er Present? Ye	s No_			-		⊸ar-i
Water Table	Present? Ye	sNo_	Depth (inches):		-		in the second
Saturation P	resent? Ye	No_	Depth (inches):	7		Wetland H	ydrology Present? Yes No
Controlog on	nillany frince)					and it most	la hter
Describe Re	corded Data (stream	gauge, monito	ring well, aerial photos	previous in	specpo	ris), it avai	IGUIS.
Remarks:							

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WETLAND DETERMINATION DATA FORM - Arid West Region

VI. Pus			12	thic Co Sampling Date: 10-10-19
Project/Site: Yakıma PUD	c	ty/County:	1	State: WA Sampling Point: DP#Z
Applicant/Owner:			-	State: WT Sampling Point:
Applicant/Owner:	s	ection, Towns	hip R	ange: ST ////
_andform (hillslope, terrace, etc.):	ı	ocal relief (do	nceve	, convex, none): Slope (%):
Subregion (LRR):				Long: Datum:
Soil Man I Init Name:		-	-	NWI classification:
Are climatic / hydrologic conditions on the site typic	al for this time of yes	7 Yes	_ No	(If no, explain in Remarks.)
Are Vegetation, Soil or Hydrology	significantly d	sturbed?	An	"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally prob	ematic?	ar	needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	e map showing	sampling p	oint	locations, transects, important features, etc.
Hydric Soil Present? Yes	No No	Is the S within a		end? Yes No
Wetland Hydrology Present? Yes Remarks:	No		-	
VEGETATION - Use scientific names	of plants.			
	Absolute	Dominant In		
Tree Stratum (Plot size:)	% Cover	Species? S	tetus	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
1			\neg	
2			\neg	Total Number of Dominant Species Across All Strata: (B)
3				Obecres various various
4		= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:	_)		-4	
77 0	40	L	776	Prevalence Index worksheet: Total % Cover of: Multiply by:
2. Syrphy, compan 4/6in	70	 4	7746	OBL species x1 =
3			_	FACW species x 2 =
4			\dashv	FAC species x3 =
5		= Total Cove		FACU species x4 =
Herb Stratum (Plot size:)	taggagagi taga an na aga sa an			UPL species x 5 =
1. Agrapped rys	80	1	704	Column Totals:(A)(B)
2.			_	The state of the s
3			+	Prevalence Index = B/A =
4			-	Hydromytic Vegetation Indicators: Dominance Test is >50%
5		h	\rightarrow	Prevalence Index is ≤3.01
6			+	Morphological Adaptations (Provide supporting
7			-	data in Remarks of on a separate sneet)
8		= Total Cove	-	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	- I DIM COVE	'	
1				¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		= Total Cove	r	Hydrophytic
% Bare Ground in Herb Stratum	% Cover of Biotic C			Vegetation Present? Yes No
	10 00101 01 010100		7	
Remarks:				
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2011					Sampling Point:
SOIL Profile Description: (Describe to the	doub needed to document t	e indicator	or c	erfi	rm the absence of indicators.)
** * * * *	Redox Feat		- 7		
(III Circa)	Color (moist) %		L	o T	Texture Remarks
			-	+	gety an
14 104×3/21			-	+	- 3-2-1
			. —	+	
			-	\perp	
				1	
				†	
			-	+	
			-	+	
¹ Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Cov	ered or Coat	ed S	nd	Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable t	o all LRRs, unless otherwise	oted.)		1	indicators for Problematic rightic Soils .
Histosol (A1)	Sandy Redox (S5				1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S				2 cm Muck (A10) (LRR B) Reduced Vertic (F18)
Black Histic (A3)	Loamy Mucky Mir		- 1	1	Red Parent Material (TF2)
Hydrogen Sulfide (A4)	Loamy Gleyed Ma Depleted Matrix (I				Other (Explain in Remarks)
Stratified Layers (A5) (LRR C)	Redox Dark Surfa				
1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11					
Thick Dark Surface (A12)	Redox Depression				3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)			1	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)					unless disturbed or problematic.
Restrictive Layer (if present):					
Туре:			Ш		
Depth (Inches):					Hydric Soil Present? Yes No No
Remarks:				Т	
				+	
IYDROLOGY				+	
Wetland Hydrology Indicators:	waterds abook all that apply)				Secondary Indicators (2 or more required)
Primary Indicators (minimum of one re-				Т	Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11) Biotic Crust (B1				Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Aquatic Inverteb	100			Drift Deposits (B3) (Riverine)
Saturation (A3)	Hydrogen Sulfid				Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)				ng F	
Sediment Deposits (B2) (Nonriver	Presence of Re	S40	4	1	Crayfish Burrows (C8)
Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)	Recent Iron Rec			ils	
Surface Soil Cracks (50) Inundation Visible on Aerial Image					Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Other (Explain i			Н	FAC-Neutral Test (D5)
Field Observations:				H	
	No Depth (inches)			П	
Garage Contract Contract					A
	The state of the state of the			W	letland Hydrology Present? Yes No
Saturation Present? Yes (includes capillary fringe)					
Describe Recorded Data (stream gaug	e, monitoringiwell, aerial photo	s previous i	spec	ban	ns), if available:
Remarks:				H	
				П	

wet A WETLAND DETERMINATION DATA FORM - Arid West Region Yakima PUD aty/County: Kith has Co Sampling Date: 10-10-19 Landform (hillslope, terrace, etc.): ______ Local relief (concave, convex, none): _____ Slope (%): _____ Long: ______ Deturn: _____ _____ Lat: ____ Subregion (LRR): NWI classification: ___ Soil Map Unit Name: (If no, explain in Remarks.) Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ Are "Normal Circumstances" present? Yes _____ No____ Are Vegetation _____, Soil _____ or Hydrology _____ significantly disturbed? (if heeded, explain any answers in Remarks.) Are Vegetation _____, Soil _____ or Hydrology ____ naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Yes No _____ Hydrophytic Vegetation Present? is the Sampled Area within a Wattand? Hydric Soil Present? Yes ____ No ___ Wetland Hydrology Present? Remarks: VEGETATION - Use scientific names of plants. Dominance Test worksheet: Dominant Indicato Absolute % Cover Species? Status Tree Stratum (Plot size: _____) **Number of Dominant Species** That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Total Cover Saoling/Shrub Stratum (Plot size: _____) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = ____ FACW species _____ x2 = ____ FAC species _____ x 3 = ____ FACU species X4 = ____ Total Cover UPL species _____ x5 = ____ Herb Stratum (Plot size: ___ 1. Phalais ander 100 Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = ____ Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.01 ___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) = Total Cover Woody Vine Stratum (Plot size: _____) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic = Total Cover Vegetation % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _ Present? Remarks:

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					42	the observe of lad	Sampling Point:
Profile Desci	ription: (Describe to the depti	needed to docume	nt the indicator	or do	ritirm	n the absence of inc	icators.)
Depth	Matrix	Redox F	eatures V Type	Lo	-	Texture	Remarks
(inches)	Color (molst) %	Color (maist)		-	4	sult ha	
16	104312	cmo		-	-	30770	
				1	+		
					_		
					T		
			+-	-	+		
				-	╁		
				-	╀		
				-	+		m. m. 111 - N. 12 - N.
Type: C=Co	ncentration, D=Depletion, RM=F	Reduced Matrix, CS=0	covered or Coa	ed Sa	nd G	rains. 'Location:	PL=Pore Lining, M=Matrix. roblematic Hydric Soils ³ :
iydric Soli lı	ndicators: (Applicable to all L						
Histosol (• •	Sandy Redox				1 cm Muck (A10) (LRR B)
	ipedon (A2)	Stripped Matrix Loamy Mucky				Reduced Ve	
Black His		Loamy Mucky Loamy Gleyed					Material (TF2)
	n Sulfide (A4) Layers (A5) (LRR C)	Depteted Matri					in in Remarks)
	ck (A9) (LRR D)	Redox Dark Si				_	
1 CRI MUI	Below Dark Surface (A11)	Depleted Dark					
	rk Surface (A12)	Redox Depres					Irophytic vagetation and
	ucky Mineral (S1)	Vernal Pools (F9)				ogy must be present,
Sandy G	leyed Matrix (S4)					unless disturb	ed or problematic.
Restrictive L	ayer (if present):						
Type:				1			
Depth (Inc	hes):	<u> </u>				Hydric Soll Pres	ent? Yes No
•						Hydric Soil Pres	ent? Yes No
Depth (Inc Remarks:	nes):	_				Hydric Soli Prese	ent? Yes No
Depth (Inc Remarks:	hes):					Hydric Soli Prese	ent? Yes No
Depth (Inc Remarks: YDROLOG Wetland Hyd	hes): GY Irology Indicators:						
Depth (Inc Remarks: YDROLOG Wetland Hyd	GY Irology Indicators: ators (minimum of one required	; check all that apply)	11)			Secondary	Indicators (2 or more required)
Depth (Inc Remarks: YDROLOG Wetland Hyd Primary Indic Surface \	GY Irology Indicators: ators (minimum of one required: Water (A1)	check all that apply)				Secondary Water	Indicators (2 or more required) Marks (81) (Rivarine)
Depth (Inc Remarks: YDROLOG Wetland Hyd Primary Indic Surface \ High Wat	hes): Irology Indicators: ators (minimum of one required: Water (A1) ter Table (A2)	check all that apply) Salt Crust (B	B12)			Secondary Water I	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine)
Depth (Inc. Remarks: YDROLOG Wetland Hyd Primary Indic Surface \ High Wat Saturatio	hes): Irology Indicators: ators (minimum of one required: Water (A1) ter Table (A2) in (A3)	check all that apply) Salt Grust (B Biotic Crust (B12) tebrates (B13)			Secondary Water I Sedime	Indicators (2 or more required) Marks (81) (Rivarine)
Primary Indic Surface N High Water Ma	GY Irology Indicators: ators (minimum of one required: Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine)	check all that apply) Salt Crust (B Biotic Crust (Aquatic Inves	B12) tebrates (B13) ilfide Odor (C1)		gRo	Secondary Water Sedime	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine)
Primary Indic Surface High Wat Saturatio Water Mit Sedimen	hes):	check all that apply) Salt Crust (B Biotic Crust (Aquatic Inver Hydrogen Su Oxidized Rhi	B12) tebrates (B13) ilfide Odor (C1) zospheres alon	Livi	gRo	Secondary Water I Sedime Drift De Draina	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10)
Primary Indic Surface N High Wat Saturatio Water Mi Sediment Drift Dep	hes): Irology Indicators: ators (minimum of one required: Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) t Deposits (B2) (Nonriverine) osits (B3) (Nonriverine)	check all that apply) Salt Crust (B Biotic Crust (Aquatic Inver Hydrogen Su Oxidized Rhi	B12) teb ates (B13) ilfide Odor (C1) zospheres alon Reduced Iron (I	Livi 4)		Secondary Water I Sedime Drift De Draina ots (C3) Crayfis	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2)
Primary Indic Surface Naturatio Water May Sediment Drift Dep	hes): Irology Indicators: ators (minimum of one required: Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) t Deposits (B2) (Nonriverine) osits (B3) (Nonriverine) Soil Cracks (B6)	check all that apply) Salt Crust (B Biotic Crust (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	B12) teb ates (B13) iffide Odor (C1) zospheres alon Reduced Iron (C	Livi 4)		Secondary Water I Sedime Drift De Draina oots (C3) Dry-Se Crayfis Satura	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) h Burrows (C8)
YDROLOG Wetland Hyd Primary Indic Surface N High Wat Saturatio Water M Sedimen Drift Dep Surface S Inundation	hes): Irology Indicators: ators (minimum of one required: Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) osits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7	check all that apply) Salt Crust (B Biotic Crust (I) Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron II	B12) teb ates (B13) lifide Odor (C1) zospheres alon Reduced Iron (I Reduction in Till urfa a (C7)	Livi 4)		Secondary Water I Sedime Drift De Draina oots (C3) Dry-Se Crayfis Satura Shallow	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C
Popth (Inc. Remarks: YDROLOG Wetland Hyd Primary Indic Surface I High Wat Saturatio Water Mi Sedimen Drift Dep Surface I Inundatio Water-St	irology Indicators: ators (minimum of one required: Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) osits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7 sained Leaves (B9)	check all that apply) Salt Crust (B Biotic Crust (I) Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron II	B12) teb ates (B13) iffide Odor (C1) zospheres alon Reduced Iron (C	Livi 4)		Secondary Water I Sedime Drift De Draina oots (C3) Dry-Se Crayfis Satura Shallow	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (Co
Primary Indic Surface N High Wat Saturatio Water Mi Sedimen Drift Dep Surface	irology Indicators: ators (minimum of one required: Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine) at Deposits (B2) (Nonriverine) osits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7 sained Leaves (B9)	check all that apply) Salt Crust (B Biotic Crust (Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron i Thin Muck Si Other (Expla	B12) teb ates (B13) ilfide Odor (C1) zospheres alon Reduced Iron (CReduction in Till urfa = (C7) in in Remarks)	Livi 4)		Secondary Water I Sedime Drift De Draina oots (C3) Dry-Se Crayfis Satura Shallow	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (Co
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WETLAND DETERMINATION DATA FORM - Arid West Region

V). Bub		11-	thinks Co Sampling Date: 10-10-19
Project/Site: Yakıma PUD o	ity/County:	4	State: WA Sampling Point: DP+4
Applicant/Owner:		+	State: VVI Sampling Force PI
Applicant/Owner: Investigator(s): Ed Se mail s	ection, Towns	hip, F	tange: 54 T19N R16E
Landform (hillslope, terrace, etc.):	ocal relief (cor	ncave	, convex, none):Slope (%):
Subregion (LRR): Lat:		+	Long: Datum:
Soil Map Unit Name:		4	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of yea	7 Yes		(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologysignificantly d	sturbed?	Ar	"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally prob		If	needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling p	oini	locations, transects, important features, etc.
/			
Hydrophytic Vegetation Present? Yes No	is the Sa within a		
Wetland Hydrology Present? Yes No	within a	vvec	and? 165
Remarks:			
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
T. At the contract of the cont		+	
VEGETATION - Use scientific names of plants. Absolute	Dominant Inc	diesto	Dominance Test worksheet:
Tree Stratum (Plot size:)	Species? S		
1.		4	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2		_	Total Number of Dominant Species Across All Strata: (B)
3		-	Species Across All Strata: (B)
4.	<u> </u>	-	Percent of Dominant Species
	= Total Cover		That Are OBL, FACW, or FAC:
Sapling/Shrub Stratum (Plot size:)			Prevalence index worksheet:
1		\neg	Total % Cover of: Multiply by:
2			OBL species x1 =
4			FACW species x 2 =
5			FAC species x3 =
J	= Total Cover		FACU species x 4 =
Herb Stratum (Piot size:	#	40	UPL species x 5 =
1		+	Column Totals: (A) (B)
2	t	+	Prevalence index = B/A =
3	h	+	Hydrontiytic Vegetation Indicators:
4			Dominance Test is >50%
5			Prevalence Index is ≤3.01
6			Morphological Adaptations ¹ (Provide supporting
7			data in Remarks or on a separate sheet)
9.	= Total Cover		Problematic Hydrophytic Vegetation1 (Explain)
Woody Vine Stratum (Plot size:)			¹ Indicators of hydric soil and wetland hydrology must
1.		+	be present, unless disturbed or problematic.
2		+	
	= Total Cover	r	Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Cover of Biotic Co	rust	_	Present? Yes No
Remarks:			
		+	A3414 VI-1- AA
US Army Corps of Engineers	1 1		Arid West Version 2.0

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S/ 111		
	SI 11	

Sampling Point:

SOIL				A for My and a second
Profile Description: (Describe to the depth needed to document ti	e indicator	OF CO	firm the ab	sence of Indicators.)
De deu Feet				
Deput Tringage	Type ¹	Lbo	Tex	ture Remarks
			40.75	1 January
16 104h 3L3		-	3117	
		-		
		_		
		- 10	1	
	_	-		
		_		
		-		2
1Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Cov	red or Coate	d Sar	d Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise	oted.)		ind	cators for Problematic Hydric Solis*:
Hydric Soll Indicators. (Applicable to dil act and different and				1 cm Muck (A9) (LRR C)
Histosol (A1) Sandy Redox (\$5	. 1			
Histic Epipedon (A2) Stripped Matrix (S	6)	- 10		2 cm Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Min				Reduced Vertic (F18)
	triv (F2)			Red Parent Material (TF2)
				Other (Explain in Remarks)
Stratified Layers (A5) (LRR C) Depleted Matrix (Onter (Exhaut at returns)
1 cm Muck (A9) (LRR D) Redox Dark Surfa				
Depleted Below Dark Surface (A11) Depleted Dark Su	face (F7)			
		- 1	³ Ind	licators of hydrophytic vegetation and
render a series of the se	9 (1 0)	- 1		retland hydrology must be present,
Sandy Mucky Mineral (S1) Vernal Pools (F9)	l t	- 1		
Sandy Gleyed Matrix (S4)			U	nless disturbed or problematic.
Restrictive Layer (if present):				
	1	- 1		
Type:	1	- 1	1 1	
Depth (Inches):	1	- 1	Hyd	ric Soil Present? Yes No
Depti: (mates).		_		
Remarks:				
HYDROLOGY				
HYDROLOGY				
HYDROLOGY Wetland Hydrology Indicators:				Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators:				Water Marks (B1) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11)				
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B1)	b			Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
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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 Inverteb Water Marks (B1) (Nonriverine) Hydrogen Sulfide Sediment Deposits (B2) (Nonriverine) Oxidized Rhizos Drift Deposits (B3) (Nonriverine) Presence of Recent Iron Red Surface Soil Cracks (B8) Recent Iron Red Inundation Visible on Aerial Imagery (B7) Thin Muck Surfa Water-Stained Leaves (B9) Other (Explain in Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):) ates (B13) Odor (C1) pheres along uced fron (C uction in Tilli pe (C7)	4) ed Soil	s (C6)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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) (Nonriverine) Hydrogen Sulfid Sediment Deposits (B2) (Nonriverine) Oxidized Rhizos Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observatione: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):) rates (B13) Odor (C1) pheres along uced fron (C uction in Tilli ce (C7) Remarks)	4) ed Soil	(C6) Wetland Hy	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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WETLAND DETERMINATION DATA FORM - Arid West Region

•	V. 1	PUD	i		1	1	titus Co	Compling Date:	10-10-19
Project/Site:				ty/County:		+	State: WA	Sampling Dates.	DAHS
Applicant/Owner:								NR16E	
nvestigator(s):	20	Senal)	s	ection, Tow	hshlpi,	Rar	A4.		(0/ 3)
andform (hillslope, ter	race, etc.): _		 !	ocal relief (once	ve, c	convex, none):	SR	ppe (%):
Subregion (LRR):			Lat:		\vdash	+	Long:		4114.
Soil Map Unit Name: _					\vdash	+	NWI classific		
Are climatic / hydrologic				? Yes			(If no, explain in F		
Are Vegetation					}		Normal Circumstances*		No
Are Vegetation	Soil	, or Hydrology	naturally prot	lematic?		lf ne	eded, explain any answe	ers in Remarks.)	
RUMMARY OF FI	NDINGS -	- Attach site	map showing	 sampling	pol	nt le	ocations, transects	s, important f	eatures, etc.
Hydrophytic Vegetatio	on Present?	Yes	No	is the				No	
Hydric Soil Present? Wetland Hydrology P	resent?	Yes	No	withir	a W	stian	id? 768	140	
Remarks:	i dadiiri					+			
(Antenno.									
			10.		\vdash	+			
/EGETATION - U	ise acien	tific names o	plants. Absolute	Dominant	ndlos	-	Dominance Test wor	kahaet:	
Tree Stratum (Plot s	ize.)	% Cover	Species?			Number of Dominant	Spenier :	
1.							That Are OBL, FACW,		<u>3</u> (A).
2.						4	Total Number of Domi	inant	3 _
3						4	Species Across All Str	rata:	(B)
4					\sqcup	4	Percent of Dominant S	Species	
				= Total Cov	er		That Are OBL, FACW	or FAC:	(A/B)
Sapling/Shrub Stratu	m (Plot size	e:	40	1	1	+	Prevalence Index wo	vicehnat:	
1. Contague 2. Corinne	-	7	30	-	a	土	Total % Cover of:		ply by:
					72	Ť	OBL species		
3,					\vdash	+	FACW species		
4					\Box	\top	FAC species		
5			0.	= Total Cov	100	T	FACU species		
Herb Stratum (Plot	size:)		, Total co	De		UPL species		
1. Phylanic	نوب ميان	hin			10	Ch	Column Totals:		
2.					1	4		744	
3					-	4		x = B/A =	
4.					-	+	Hydrophytic Vegeta		
5					-	+	Dominance Test Prevalence Index	16 ~00 7 0 16 < 3 ∩ ¹	
6					-	+	Prevalence index	co =v.v Isotatione¹ /Provid	le supporting
7					\vdash	H	data in Remai	uce ot ou a sebate	uer errerer)
8						+	Problematic Hydi	rophytic Vegetation	n¹ (Explain)
Woody Vine Stratum	(Diateire)	1		= Total Cov	rer				
1.						Ш	¹ Indicators of hydric s	oil and wetland hy	drology must
2						П	be present, unless die	sumed or problem	IBBC.
£				= Total Co	/вг	П	Hydrophytic		
% Bare Ground in He	ask Clantura	i	% Cover of Blotic C	rust			Vegetation Present?	res No.	
	ero Subrum		W 20101 21 01000 C			+			
Remarks:									
				1					
US Army Corps of Eng	ringers					П		Arid Wes	st Version 2.0

_	_		
-	_	88	

Sampling Point: DAH5

20IL		_	-	6 1 1 1 A - 3
Profile Description: (Describe to the depth needed to document to	he indicator	or do	dirm the	absence of indicators.)
B. J. of Edition	iroe		1	
DOPA"		16	-2	Texture Remarks
(inches) Color (moist) % Color (moist) %		-40	4	Texture Remarks
16 7.5 2.5/1 cm med	Ay dint			St. of St. of St.
		_		
			_	
		-		
		-	+	
		-	+	
		-	+	2
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Cov	ered or Coal	ed Sa	nd Grains	Location: PL=Pore Lining, M=Matrix.
Type. C-concentidation, b-concent, the table unless otherwise.	noted)			Indicators for Problematic Hydric Soils:
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise	loced.j		1	-
Histosol (A1) Sandy Redox (S5	1			1 cm Muck (A9) (LRR C)
I Hotorov (111)			1	2 cm Muck (A10) (LRR B)
Histic Epipedon (A2) Stripped Matrix (S				
Black Histic (A3) Loamy Mucky Mir	eral (F1)			Reduced Vertic (F18)
				Red Parent Material (TF2)
IIyorogon wamaa (***)				
Stratified Layers (A5) (LRR C) Depleted Matrix (1	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D) Redox Dark Surfa	ce (F6)		1	
1 Ott 1000 / m / far - 1 m /				
Depleted Below Dark Surface (A11) Depleted Dark Su				\$
Thick Dark Surface (A12) Redox Depression	s (F8)			Indicators of hydrophytic vegetation and
				wetland hydrology must be present,
				unless disturbed or problematic.
Sandy Gleyed Matrix (S4)				unless disturbed or problematic.
Restrictive Layer (if present):				
Kestuctive rayer (it hieserry).	1		1	
Туре:			1 1	
			1 1	lydric Soil Present? Yes No
Depth (inches):				iyane con i resonti
=				
Remarks:				
			1	
		_	-	
HYDROLOGY				
nee at the first and and the standards				
Wetland Hydrology Indicators:			1	
Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (2 or more required)
			1	Water Marks (B1) (Riverine)
Surface Water (A1) Salt Crust (B11)		1	1	
	h			Sediment Deposits (B2) (Riverine)
	li o		1	
Saturation (A3) Aquatic Inverteb	rates (B13)			Drift Deposits (B3) (Riverine)
	Odor (Ct)		1	Drainage Patterns (B10)
		L l		
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizos	pneres along	Livip	g Roots (C3) Dry-Season Water Table (C2)
	uced Imn /d	41		Crayfish Burrows (C8)
		747.00		
Surface Soil Cracks (B6) Recent Iron Red	uction in Till	ed So	15 (C6)	Saturation Visible on Aerial Imagery (C9)
				Shallow Aguitard (D3)
Water-Stained Leaves (B9) Other (Explain in	(Remarks)			FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present? Yes No Depth (inches):				
		1		
Water Table Present? Yes No Depth (inches):				
program recommend to the control of		1		
	0"	-1	Wetland	Hydrology Present? Yes No
Saturation Present? Yes No Depth (inches):	0"		Wetland	Hydrology Present? Yes No
Saturation Present? Yes No Depth (inches):				
Saturation Present? Yes No Depth (inches):		spect		
Saturation Present? Yes No Depth (inches):		spect		
Saturation Present? Yes No Depth (inches):		specti		
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos		spec		
Saturation Present? Yes No Depth (inches):		spect		
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos		speci		
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos		speci		
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos		speci		
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos		speci		
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos		speci		
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos		spect		

WETLAND DETERMINATION DATA FORM - Arid West Region

Poplicant/Owner Statute. LATA Sampling Point: Depth (population) Second I	\	Lakima	PUD			lk.	H12	Co	Sampling Date:	10-10-19
restligisories: Security Section, Towards Fange: St TYTN RACE andform diffeton, terrace, etc.): Local relief (encous, convex, none): Slove (%): Lott. Long: Datum: Datum: Not classification: (fin or, appliein in Remarks): No (fin or, appliein in Remarks	Project/Site:	per per may	1		aty/County:	-/-		States WA	Sampling Point	DP#6
Josephon (Hillstope, terrace, otc.): Let: Lot: NW classification: Wind in Remarks.) Sold or Hydrology algnificantly	Applicant/Owner:	<u> </u>						54 T/	ON RIGE	
Left	Investigator(s):	20 5	senal)		ection, Tow	hship, i	Range _	``	St.	/0/ >-
Not described by the Name: In administer hydrologic conditions on the site typical for this time of year? Yes described hydrologic conditions on the site typical for this time of year? Ye Vogetation	Landform (hillslope, tem	ace, etc.):			ocal relief (oncev	e, conve	x, none):	510	pe (76).
yes map to in Nation. The dimatic Phythologic conditions on the site typical for this time of yes of Yes. You Vegetation Soil or Hydrology patients and the map showing sampling point in Normal Circumstances' present? Yes No Within Standard Phythology presents and the map showing sampling point in Normal Circumstances' present? Yes No Within Sampling point in Normal Circumstances' present? Yes No Within Sampling point in Normal Circumstances' present? Yes No Within Sampling point in Normal Circumstances' present? Yes No Within Sampling point in Normal Sampling poi	Subregion (LRR):			Lat:		-				
tre Vegestein Soil or Hydrology algnificantly disturbed? the Vegestein Soil or Hydrology naturally protesmatio? the Vegestein Soil or Hydrology naturally protesmatio? the Vegestein Soil or Hydrology naturally protesmatio? SUMMARY OF FINDINGS - Attach site imap showing sampling point locations, transects, important features, etc. Hydrolytic Vegestein Present?	Soil Map Unit Name:					\vdash				
Very expectation	Are climatic / hydrologic	conditions or	the site typical	for this time of yes	? Yes					_
No						A				No
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No	Are Vegetation	Soil	or Hydrology	naturally prot	ematic?	lf (lf	needed	, explain any ansv	vers in Remarks.)	
Within a Windand? Yes No	SUMMARY OF FI	NDINGS -	Attach site	map showing	sampling	poin	locat	ions, transec	ts, important fe	atures, etc.
Remarks:	Hydrophytic Vegetatio Hydric Soil Present?	on Present?	Yes	No No	is the	Sampl	led Area	1		
Absolute Society Soc					-					
Absolute Society Soc										
Absolute Society Soc	TATION (No pomos si	finlente			-			
Tree Stratum (Plot size:	VEGETATION - U	26 2Cicuni	ic names o		Dominant	ndicato	Do	minance Test wo	rksheat:	
2. Total Number of Dominant Species Across All Stratum (Plot size: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total Scover of Multiphy by: OBL species X 1 = FACW species X 2 = FACW species X 3 = FACW species X 4 = UPL sp				% Cover			l I	mber of Dominant at Are OBL, FACY	Species V, or FAC:	/(A)
Species Across All Strata: (B) Seading/Shrub Stratum (Plot size:							Tot	Number of Dan	alnent /	
Saping/Shnub Stratum (Plot eize:						\vdash				(B)
Septing/Shnub Stratum (Plot size:	N ====================================					-	Per	ment of Dominant	Species / 4	ال الواد م
1					= Total Cov	er	The	et Are OBL, FACV	V, or FAC:	(A/B)
Total % Cover of Multiply by: OBL species				-}		1 1	Pre	valence index w	orksheet:	
Solit. species				:						V by:
4				T .			OB	L species	x1=	
FAC species							I FA	CW species	x2=	*********
FacU species										
1. Phabris arrestorm March Column Totals:(A)(B) 2					= Total Cov	er				
2. 3. 4. 5. 6. 7. 8. —— Total Cover 1. 2. —— Total Cover % Bare Ground in Herb Stratum — % Cover of Biotic Crust — Present? Prevalence index = B/A =	Herb Stratum (Plot s	ize:)	den)		FALL				
3.						1	Co	lumn Totals:	(A)	(B)
4				1		+	+1	Prevalence Ind	ex = B/A =	
5							Hy	drophytic Veget	ition Indicators:	
6				,		\Box	T1_	Dominance Test	t is >50%	
7				1			T _	Prevalence inde	x is ≤3.0¹	
8 = Total Cover Problematic Hydrophytic Vegetation (Explain)							II	Morphological A	daptations1 (Provide	supporting
Woody Vine Stratum (Plot size:) 1				1						
1				1	= Total Cov	er		тоонетвис тус	nophytic vegetation	(CApas)
2 = Total Cover	II.			i			l In	dicators of hydric	soil and wetland hyd	irology must
% Bare Ground in Herb Stratum % Cover of Biotic Crust Hydrophytic Vegetation Present? Yes No	0			!			be	present, unless d	isturbed or problem	gac.
Remarks:	2.					фг	Ve	getation	1/1	
	% Bare Ground in He	rb Stratum _	9	Cover of Blotic C	rust	\vdash	Pro	esent?	Yes No_	<u>-</u>
Arid West Version 2.0	Remarks:			1						
IS Apply Come of Engineers Arid West Version 2.0										
Arid West Version 2.0										
IS Asset Come of Engineers Arid West Version 2.0										
	IR Army Come of Earl	inapre			†	+	+		Arid West	- Version 2.0

SOIL			Sampling Point:
D	erintion: (Describe to the date	h needed to document the in	dicator or confirm the absence of indicators.)
	Matrix	Redox Features	
Depth (inches)	Color (moist) %		Type I had Texture Remarks
	104h 3/2.5		5.11/~
16	3040 3/0-4		
		D. 1	or Coaled Sant Grains. ² Location: PL=Pore Lining, M=Matrix.
Type: C=C	Concentration, D=Depletion, RM= Indicators: (Applicable to all	Reduced Wattix, CS-Covered	
•			1 cm Muck (A9) (LRR C)
Histoso		Sandy Redox (S5	2 cm Muck (A10) (LRR B)
	pipedon (A2)	Stripped Matrix (S5)	
	fistic (A3)	Loamy Mucky Mineral	
Hydrog	en Sulfide (A4)	Loamy Gleyed Matrix (Other (Explain in Remarks)
	ed Layers (A5) (LRR C)	Depleted Matrix (F3) Redox Dark Surface (F	
	luck (A9) (LRR D)	Depleted Dark Surface	
	ed Below Dark Surface (A11)	Redox Depressions (F	
	Dark Surface (A12)	Vernal Pools (F9)	wetland hydrology must be present,
	Mucky Mineral (S1)	Vernal Pools (F9)	unless disturbed or problematic.
	Gleyed Matrix (S4)		anos distance of pro-
Restrictive	Layer (if present):		
Type:	nches):	-	Hydric Soil Present? Yes No
Remarks:	nules).		
YDROLO	OGY		
Wetland Hy	ydrology indicators:	750 W N	Secondary Indicators (2 or more required)
Primary Ind	ficators (minimum of one required		
Surface	Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
	/ater Table (A2)	Biotic Crust (B14)	Sediment Deposits (B2) (Riverine)
	tion (A3)	Aquatic Invertebrates	
	Marks (B1) (Nonriverine)	Hydrogen Sulfide Od	
	ent Deposits (B2) (Nonriverine)		res along Living Roots (C3) Dry-Season Water Table (C2)
	aposits (B3) (Nonriverine)	Presence of Reduces	1 1 1
	e Soil Cracks (B6)	Recent Iron Reduction	
	e Soil Cracks (55) tion Visible on Aerial Imagery (B		
		Other (Explain in Ren	
	Stained Leaves (B9)	Color (Explaint il 140)	
Field Obse			
		NoDepth (inches):	
Water Table	e Present? Yes	NoRepth (inches):	
Saturation F	ollany frince)	No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Re	ecorded Data (stream gauge, mo	enitoring well, aertal photos, pre	avious inspections), if available:
Remarks:			

				1 1			
Wetland name or nur	mberA	1 1/.	34.	Bud			
	RATING S	1100000	DV		n Washi	naton	
	KATING 5	UNIVIA	KI - I	aster	ii AAG2IIII	iigtoii	
Name of wetland (or ID #):	etted 1	4		Date of site	visit: <u>///09</u> , //c	04, 10/19
Name of wetland (Semul	Trail	ned by Ed	cology? Y	es_No Da	ite of training 9	//8
HGM Class Used fo	or Rating P.	restre	_ Unit I	has multi	ole HGM classe	es?N	
NOTE:	Form is not con	plete withou	ut the fig	ures requ	ested (figures	can be combined	Ŋ.
Sou	arce of base aeria	al photo/map	·——				
	O	VERALL W	/ETLAN	ID CAT	EGORY <u>I</u>	pita minin	
1. Category	of wetland ba	sed on FUI	ICTION:	s		Score for each function based	
	Category I - To	i				on three ratings	
	Category II - To	ì				ratings (order of ratings is not	
***	Category III - To	1				important)	
	Category IV - To	otal score = 9	- 15		,	9 = H,H, H	
ENCTOR	Improving	- Hydrologic		bitat		8 = H,H,M	
	Water Quality				1	7 = H,H,L	
	Circle the	appropriate	120		:	7 = H,M,M	
Site Potential	H ₩ L	H (M) L	- 345	M L	1	6 = H,M,L	
Landscape Potential	H (M) L	H M L	(4)	VI L	1	6 = M,M,M	
Value	H M	H M L	(I)	VI L	1	5 = H,L,L 5 = M,M,L	
Score Based on		-	0			4 = M,L,L	
Ratings	5					3 = L,L,L	
2 Category	based on SPE	CIAL CHAR	ACTERIS	TICS of	wetland		_
	CHARACTERISTIC		7.		CATEGORY oppropriate cat	egory.	
Vernal Pools					il III		
Alakali					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			11		

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Floodplain forest

None of the above

1

П

			A
Wetland	name or	number	

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

Depressional Wetlands

Minote and the second s	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, H1.3
Location of outlet (can be added to map of hydroperiods)	D 1.1, D1.4
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, H2.2
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 four d (from web)	D 3.3
Area of open water (can be added to map of hydroperiods)	H1.3.1

Riverine Wetlands

Map of the second of the secon		To answer questions:	Fleure#
Cowardin plant classes and classes of emergent	S	H 1.1, H 1.4	
Hydroperiods		H 1.2, H1.3	
Ponded depressions		R 1.1	
Boundary of 150 ft buffer (can be added to anot	ther figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plant	ants	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 -include habitat and undisturbed habitat	ling polygons for accessible	H 2.1, H2.2	
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 wh	nich unit is four d (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, H2.2
Screen capture of map of 303d listed waters in basin (from Ecology web lite)	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 the second secon	• De attaine à questione
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)	\$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, H2.2
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 Rating System for Eastern WA: 2014 Update Rating Form

				A.	
Metland	name	or	number	611	

HGM Classification of Wetland Units in Eastern Washington

For questions: 1.4 the cetteria described must apply to the entire unit being rated for it.

to be classified correctly.				
If the hydrologic criteria listed in	each questi	on do no		dy to the entire unit being
rated, you probably have a unit w	nth multiple	HOM Ch	出版日本	What is excluded by the first
parologica (layer la alexidate)	A apply, at	d go tu Q	west	ion S
1. Does the entire wetland unit m	eet both of	the follo	wins	criteria?
The vegetated part of the	wetland is	on the w	ater	side of the Ordinary High Water Mark
of a body of permanent of	open water	(withou	any	plants on the surface) that is at least
20 acres (8 ha) in size			4h.	10 th (2 m)
At least 30% of the open NO - go to 2 YES -	The wetlan	s deepe I class is	Lak	e-fringe (Lacustrine Fringe)
	1			
2. Does the entire wetland unit me The wetland is on a slop	pe (slope ca	be very	grad	ual),
The water flows through	h the wetlar	id in one	dire	ction (unidirectional) and usually
comes from seeps. It may flow	subsurface,	as sheet	low,	or in a swale without distinct banks.
Does the water leaves the wet	s not nond	n these t	vpe (f wetlands except occasionally in
very small and sha	allow depre	sions of	beh	nd hummocks (depressions are
usually <3ft diame	eter and les	than 1	oot	leep).
	The wetland	- 1		
3. Does the entire wetland unit m	eet all of th	follow	ng ci	it gets inundated by overbank
flooding from that stre	eam or river	aiiliei, w	nere	it gets manuaced by overbank
The overbank flooding	occurs at le	ast once	ever	y ten years.
	it can conta	in depre	ssiør	s that are filled with water when the
river is not flooding. NO - go to 4 YE\$ - Th	ne wetland	lass is R	ver	ne
9				which water ponds, or is saturated to
the surface, at some time durin	g the year.	This me	ns t	at any outlet, if present, is higher than
the interior of the wetland.				
NO – go to 5 YES – T	he wetland	class is I)epr	essional
5. Your wetland unit seems to be	difficult to c	assify a	d pr	bably contains several different
HGM classes. For example, see	ns at the bas	e of a sl	per	hay grade into a riverine floodplain, or
a small stream within a depress	sional wetla	nd has a	ZONE	of flooding along its sides. IDENTIFY
WHICH OF THE HYDROLOGIC I	KEGIMES DI IT (make a r	ough sk	tch	to help you decide). Use the following
table to identify the appropriat	e class to us	e for the	rati	g system if you have several HGM
Wetland Rating System for Eastern WA: 2014	Hadaba		1	3

Wetland name or number_____

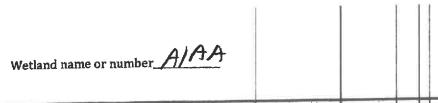
classes present within your wetland. NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class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

HGM Classes with	nin the wetlan	d unit			HCM Class to
Slope -	Riverine		511254		Riverine
	epressional				Depressional
	Lake-fringe				Lake-fringe
Depressional + Riv	erine (the riv	erine por pression	tion		Depressional
	1 + Lake-fring				Depressional
	Lake-fringe			I	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						
RIVERINE WETLANDS					a water quality	Points (only 1 score
Water Quality Functions - Indicators				_		per box)
R 1.0 Does the wetland unit have the pote	ntial to improv	e water o	uali	Ŋ	?	
R 1.1 Area of surface depressions within	the riverine wet	land that o	an t	a	sediments during a flooding	
event Depressions cover >1/3 area of wetland					points = 6	
Depressions cover > 1/10 area of wetlan					points = 3	
Depressions present but cover < 1/10 a				П	points = 1	/
No depressions present					points = 0	Co
R 1.2 Structure of plants in the unit (areas with	>90% cover at p	erson hei	ht;	10	Cowardin classes):	
Forest or shrub > 2/3 the area of the we				П	points = 10	
Forest or shrub 1/3 – 2/3 area of the we				П	points = 5	
Ungrazed, herbaceous plants > 2/3 area	of wetland			П	points = 5	
Ungrazed herbaceous plants 1/3 – 2/3 a				П	points = 2	
Forest, shrub, and ungrazed herbaceous		tland		Ц	points = 0	5
Total for R1			Α	dd	the points in the boxes above	11
Rating of Site Potential If score is:	12 - 16 = H	(6	-1	1	= M 0-5=L	
				Ц	the rating on the first page	
R 2.0 Does the landscape have the potenti	al to support th	e water	ual	ty	function at the site?	
R 2.1 is the unit within an incorporated city or					Yes = 2 No = 0	0
R. 2.2 Does the contributing basin include a UC	A or incorporate	d area?			Yes = 1 No = 0	1
R 2.3 Does at least 10% of the contributing bas	n contain tilled	ields, past	ures	9	r forests that have been	
clearcut within the last 5 years?				Ш	Yes = 1 (No = 0	0
R 2.4 is > 10% of the buffer within 150 ft of we	land unit in land	uses that	gen	er	ite pollutant Yes = 1 No = 0	1
R 2.5 Are there other sources of pollutants co	ming into the we	tland that	are i	ho	t listed in questions	_
R 2.1 – R 2.4? Source				Ш	Yes = 1 No = 0	0
	the points in the					2
Rating of Landscape Potential If score is:	3-6 = H		1 o	2	= M 0 = L Like rating on the first page	
R 3.0 Is the water quality improvement	provided by t	ne site v	lua	hi	e ta society?	
R 3.1 is the unit along a stream or river that is o	a the 202 d list o	r on a trib	Itan		not drains to one?	
			_	L	Yes = 1 No = 0	
R 3.2 Does the river on stream have TMDL limit	s for nutrients, t	xics, or p	tho	е	rs? Yes = 1 No = 0	0
R 3. Has the site been identified in a watershed	or local plan as i	mportant	or n	ai	ntaining water quality?	
(answer YES if there is a TMDL for the drain	age in which uni	is found)			Yes = 2 No = 0	0
	the points in the	1	1		180	0
Rating of Value: If score is:	2-4 = H	Pa	1=!		0 = C	
		Rec	Jora	10	he rating on the first page	
			1			
	Į.					
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RIVERINE WETLANDS Hydrologic Functions - Indicators that	site functions	to reduc	e flo	pding and stream erosion	Points (only 1 score per box)
R 4.0 Does the wetland unit have the po	tential to red	uce floo	ding a	nd erosion?	
B 4.1 Characteristics of the overbank storage the	e unit provides:			2	
Estimate the average width of the wetland unit	perpendicular t	the direct	ion of	the flow and the width of the	
stream or river channel (distance between banks	s). Calculate the	ratio: (a	erage	width of unit)/(average width	
of stream between banks).				7	
-					
If the ratio is more than 2				points = 10	
If the ratio is between 1 – 2				points = 8	
If the ratio is ½ - <1				points = 4	
If the ratio is ¾ -< ½				points = 2	4
If the ratio is < ¾				points = 1	
R 4.2 Characteristics of plants that slow down w	ater velocities	uring floo	ds: Tre	at large woody debris as	
"forest or shrub". Choose the points appropria	e for the best de	scription.	polyg	ons need to have >90% cover	
at person height NOT Cowardin classes):					
	_				
Forest or shrub for more than 2/3 the area o	f the wetland.			points = 6	
Forest or shrub for >1/3 area OR herbaceous	plants > 2/3 ar	a		points = 4	W
Forest or shrub for > 1/10 area OR herbaced	us plants > 1/3	rea		points = 2	7
Plants do not meet above criteria				points = 0	
Total for R 5			Add	he points in the boxes above	8
Rating of Site Potential If score is:	12 - 16 = H	(6	-11	0-5=L	
Raulig Of Site Potential		Re	cord	me rating on the first page	
		- books la	-10	- stiens at the site?	
R 5.0 Does the landscape have the potential		e nyarolo	gic Tu	nctions at the site:	1
R5.1 Is the stream/river adjacent to the unit do	wncut?			Yes = 0 No = 1	0
R 5.2 Does the upgradient watershed include a	UGA or incorpo	ated area		Yes = 1 No = 0	
R 5.3 Is The upgradient stream or river controlle				res = 0 No = 1	0
Total for R 5			Ad	the points in the boxes above	
Rating of Landscape Potential If score is	: 3 = H	1 or 2 = 1		0 = L	
Nating of Canascape 4 occurred			Reco	rd the rating on the first page	
				-2	
R 6.0 Are the hydrologic functions provided	by the site va	uable to	societ	ry?	
R 6.1 Distance to the nearest areas downstrear fits the site.	that have floo	ling proble	ms?	hoose the description that best	
The sub-basin immediately down-gradien	t of site has sur	ace floodi	ng pilo	blems that results in damage to	
human or natural resources			.	points = 2	
Surface flooding problems are in a basin fi	orther down-gra	dient		points = 1	
No flooding problems anywhere downstre	am			points = 0	2
		rogo or fl	ad da	veyance in a regional flood	
R 6.2 Has the site has been identified as impor	ant for flood su	orage or in	100 00	Yes = 2 No = 0	2
control plan? Total for R 6			Ad	the points in the boxes above	4
	- 10			0 = L	7
Rating of Value If score is	2-4=4	1 = M	Reco	nd the rating on the first page	
	A III. dae-				8
Wetland Rating System for Eastern WA: 201	4 update				3
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These questions apply				útat.	(only 1 score per box)
HABITAT FUNCTIONS - Indicators that s				nta t	,
1. Does the wetland unit have the potential	to provide habitat	for mai	ny species?		
H 1.1 Categories of vegetation structure Theck the Cowardin vegetation classes present and attegory is >= % acre or >= 10% of the unit if unit is	d categories of emerg is < 2.5 acres	ent pla	nls. Size thre	shold for each	
Emergent plants 0-12 in. (0 – 30 cm) hig	h are the highest laye	r and h	ave > 30% co	ver	
Emergent plants >12 - 40 in.(>30 - 100c	cm) high are the high	stlayer	with >30% c	over	
Emergent plants > 40 in.(> 100cm) high	are the highest layer	with >3	0% cover		
Scrub/shrub (areas where shrubs have	>30% cover)		4-6 che		
Forested (areas where trees have >30%	6 cover)	1 1	3 check	ks points = 2	7
			2 check	cs points = 1	7
		1 1	1 check	k points = 0	
H 1.2. Is one of the vegetation types "aquatic be	ed?"	YES =	1 point	NO = 0 points	0
YES = 3 points H 1.3.2 Does the unit have an intermittent of boundaries, or along one side, over at least	o early June OR in Aug r YES for Lake fringe v & go to H 1. or permanent and ur	us: to vetland vegeta	NO NO stream was wer yes only	= go to H 1.3.2	3
H 1.4. Richness of Plant Species Count the number of plant species in the we lar species can be combined to meet the size the Do not include Eurasean Milfoil, reed can Canadian Thistle, Yellow flag Iris. # of species Scoring: > 9 species = 2	reshold) You do inarygrass, purple loo and Salt Ceda (Tama	ngt na sestrife, risk)	ve to name tr	e, Phragmites,	2.
H 1.5. Interspersion of habitats Decide from the diagrams below whether interspersion of universe and universe areas (open water or mudflats) in the second control of the secon	is high, medium, low,	or hone	-		Figure
None = 0 points Low = 1 point	Moder	ate=2	oc ints		
High = 3 points High = 3 points NOTE: If you have four or more classes or three p				vith 2 classes = High always "high".	2

	Ì		-		
Wetland name or numberA					/ 6 ,
· · · · · · · · · · · · · · · · · · ·			-+		
H 1.6. Special Habitat Features: Check the habitat features that are present	t in the wetland	unit. The	numb	r of checks is the score.	
Loose rocks larger than 4" or large, downe	d. woody debris	(>4in. diar	eter)	within the area of surface	
ponding or in stream.	,				
Cartails or bulrushes are present within the	unit.				
Standing snags (diameter at the bottom >	inches) in the	vetland un	it or w	ithin 30 m (100ft) of the edge.	1
Emergent or shrub vegetation in areas that	are permanent	y inundate	d/ppi	nded.	
Stable steep banks of fine material that mi	ght be used by t	eaver or n	uskla	for denning (>45 degree	
slope) OR signs of recent beaver activity				L. L of multip	
Invasive species cover less than 20% in ea	h stratum of ve	getation (c	anopy	sub-canopy, snrubs, aximum score possible = 6	4
herbaceous, moss/ground cover)			_		
H 1. TOTAL Score -		Add the	check	marks in the box above	13
Rating of Site Potential If score is:	12-16 = H	Rei	- 11 ord	M 0 - 5 = L he rating on the first page	
H 2.0 . Does the landscape have the potent	ial to support	abitat at	the si	te?	
H 2.1 Accessible habitat (only area of habitat at	utting wetland	nit) Calcu	late		
% undisturbed habitat 20 + [(% moderate	and low intens	ty land use	51/21	5 = 27.5 %	
If total accessible habitat is:	and low micens	cy land do	-,, -,		
> 1/3 (33.3%) of 1km circle (*	100 hactares)			points = 3	
20 - 33% of 1km circle	100 nectares/			points = 2	
				points = 1	->
10- 19% of 1km circle				points = 0	_
<10% of 1km circle	init if:		\vdash		
H2.2 Undisturbed habitat in 1km circle around Undisturbed habitat > 50% of				points = 3	
		e .		points = 2	
Undisturbed habitat 10 - 50%		3		points = 1	
Undisturbed habitat 10 - 50%				points = 0	2
Undisturbed habitat < 10% of	arcie	-	\vdash	points	
H2.3 Land use intensity in 1 km circle. If:				points = (- 2)	
> 50% of circle is high intensit				points = 0	0
Does not meet criterion above					
H 2.4 17 The wetland unit is in an area where a	nnual raintali is i	etructura	(60)	es, and its water regime is not	
influenced by irrigation practices, dams, boundaries of reclamation areas, irrigati	or water control	enucine)	100	points = 3	0
			1		4
10001101112	Add the points	in the bo			
Rating of Landscape Potential If score is:	4-6=H	P	1-3 =	1	
			Reco	d the rating on the first page	
H 3.0 Is the Habitat provided by the site va	uable to socie	γ?			
H3.1Does the site provides habitat for species	alued in laws, re	gulations	or pol	icies? (choose the highest score)	
Site meets ANY of the following criteria:			ш	(points = 2	
lt provides habitat for Threatened or Er	dangered specie	s (any pia	t or a	nimal on state or federal lists)	
It is a "priority area" for an individual W	DFW species				2
	n Value as deter	mined by 1	he De	partment of Natural Resources	
It has 3 or more priority habitats within	100m (see Appl	ndix B)			
It has been categorized as an important	habitat site in a	local or re	gion	I comprehensive plan, in a	
Shoreline Master Plan, or in a waters	ed plan				
Site has 1 or 2 priority habitats within 100m	see Appendix B)			points = 1	2
Site does not meet any of the criteria above				points = 0	<u> </u>
Rating of Value If score is:	2 = H	1	= M	0 = L	
The state of the s			Reco	the rating on the first page	
Wetland Rating System for Eastern WA: 201	4 Update				14
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				A
Matland	name	or	number	

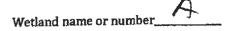
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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 ft ² , and does it meet at least two of the following	
criteria?	
Its only source of water is rainfall or showmelt 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 NOTE: If you find perennial,	
"abligate", wetland plants the wetland is probably NOT a vernal pool	
— The soil in the wetland are shallow (< Ift 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 - rot a verral 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	Cat. II
resources within 0.5 miles (other wetlands, rivers, lakes etc.)?	Cat. III
YES = Category II NO = Category III	
SC 2.0 Alkali wetlands	The Applica
Does the wetland unit meets 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 meets two of the following three sub-criteria?	1
— Salt encrustations around more than 80% of the edge of the wetland	
- More than % 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.	Cat. I
YES = Category I NO - not an alkali wetland	1700 Control 45
- Marchine (March 201) Annual and March 201 Annual and	1 E 45 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

SC 3.0 Wetlands with High Conservation	on Value (WH	cV)			
SC 2.1 Has the Department of Natural	Resources upd	ted their	web	site to include the list of	
Wetlands with High Conservat	ion Value?	· · · · · · · · · · · · · · · · · · ·			Cat. i
YFS - Go to SC 2.2	/ NO - Go to	SC 2.3	الس		Cat. I
SC 2.2 Is the wetland unit you are ratin	g listed on the	DNR data	base	e as having a High	
Conservation Value? YES =	Category	l No	= nø	otja WHCV	
SC 2.3 is the wetland unit being rated	n a Section/To	wnship/R	ange	that contains a Natural	
Heritage wetland?				1	
http://www1.dnr.wa.go	v/nhp/refdesk/	datasear	h/w	nhowetlands.pdf	
YES contact WNHP/DNR and				WHCV	
SC 2.4 Has DNR identified the wetland		Rasaw	tland	with mgn Conservation	
value and is listed on their web site			.		
YES = Category I	NOno	t an WHO	٧		
SC 4.0 Bogs and Calcareous Fens					
Does the wetland unit (or any part of th	e wetland unit	meet bo	h the	e criteria for soils and	
vegetation in bogs or calcareous fens. U	e the key belo	w to iden	ify if	the wetland is a bog or	
calcareous fen. If vou answer yes you w	ll still need to I	ate the w	etlan	nd based on its functions.	
SC 4.1. Does an area within the wetla	hd unit have or	ganic soil	hor 2	zons (i.e. layers of organic	
soil), either peats or mucks, that co	mpose 16 inch	es or mor	e of t	the first 32 inches of the	
soil profile? (See Appendix C for a f	eld key to ider	tify organ	IC SO	pi s)?	
Yes - go to SC 4.3	No.	p - go to	C 4 2	2)	
SC 4.2. Does an area within the unit h	ave orga nie so	s, either	peats	s or mucks that are less	
than 16 inches deep over bedrock	r an imperme	ble hard	an s	such as clay or volcanic	
ash, or that are floating on top of a	lake or pond?	agada sang ini mengali sadi sa	::::475E	G	
Yes - go to SC 4.3	N	b - Is not	bog	g for rating	
SC 4.3. Does an area within the unit h	ave more than	70% cove	rof	moses at ground level	
AND at least 30% of the total plant	cover consists	of specie	in T	able 57	
Yes Category I bog		o - go to			
NOTE: If you are uncertain about th	e extent of mo	sses in th	unp	perstory you may	
substitute that criterion by measur	ing the pH of th	e water t	nat s	Table E are present the	
least 16" deep. If the pH is less tha	n 5.0 and the p	vant spec	25 11	luble 5 are present, the	
wetland is a bog.	6 and 6. 00		ا عدا	nihalning fir western red	
SC 4.4 Is an area with peats or mucks	rorested (> 30	cover) \	VILL S	nn's enrice or western	
cedar, western hemlock, lodgepole	pine, quaking	espen, tr	RICH	listed in Table 5 provide	
white pine, AND any of the species	(or combinati	pri or spe	ies)	integ it rapie a bioaide	
more than 30% of the cover under		1 ma +a =	المحا	ion SC 4.5	Cat. I
Yes - Category I bog					
5. Do the species listed in Table 6 com	prise at least 2	v% or the	total	i piant cover within an area of	
peats and mucks?		L N1-	ام ا	to Question 6	
Yes – is a Calcareous Fen for p	urpose of ratio				-
6. Do the species listed in Table 6 comp	rise at least 10	nditions i	Dr.a	Plant Cover an area or pears	
and mucks, AND one of the tw Marl deposits (calcium carbor	o tollowing co	recinitate	CCC	ur on the soil surface or plant	
	are (cacca) b	Copitate	1	On the son santage of plants	
stems • The pH of free water ≥ 6.8 AN	Delectrical co	ductivity	200	OuS/cm at multiple locations	
within the wetland	GICCUITON CO				
Yes – is a Category I calcareou	s fen	No	ls h	not a calcareous fen	Cat. I
res - is a category i carcareou	, idii	140			



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 on y 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 (Populus tremuloides) 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	Cat. i
YES = Category i NO = gd to SC 5.2	
SC 5.2 Does the unit have areas where aspen (Populus tremulo des represents at least 20% of	Cat. I
the total cover of woody species.	
YES = Category I NO = gd to SC 5.3	
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)	Cat. II
YES = Category II NO = gd to SC 5.5	
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
Charge the "highest" rating if wedard falls into several categories	NA
If you answered NO for all types enter "Not Applicable" on p.1	1 4/3

Appendix B: WDFW Priority Habitats in Eastern Washington

		1					
Priority habitats listed by WDFW (see complete found, in: Washington Department of Fish and http://wdfw.wa.gov/publications/00165/wd	d Wildlife. 200 fw00165.pdf	8. Priority	Нарі	tat and Spec	ies List Olymj	pia, wasningwii.	177 pp.
Count how many of the following priority habit independent of the land use between the wetland	tats are within nd unit and the	330 ft (100 priority ho	om) o bitet	f the wetlan	d unit? NOTE	: This question is	•
Aspen Stands: Pure or mixed stands of asp							
Biodiversity Areas and Corridors: Areas wildlife (full descriptions in WDFW PHS report	p. 152).						
structural characteristics due to the influence trees/ha (10 trees/acre) that are > 53 cm (21 diameter. Downed logs may vary from abunda alterations to the stand will be absent or so slifterests: Stands with average diameters exceed numbers of snags, and quantity of large downwest and 80 - 160 years old east of the Cascad	of fire, climate in) dbh, and 2 ant to absent. (ight as to not a ding 53 cm (21 ed material is le crest.	, and soils. 5-7.5 snag anoples m ffect the ec in) dbh; c generally c	In ge s/ha ay be cosys rown ess th	neral, stand [1 – 3 snags single or m tem's essent cover may k an that four	s will be >150 /acre) that are ulti-layered. E ial structures be less than 10 ad in old-grow	years of age, whee > 30-35 cm (12 vidence of huma and functions. Mac ow, decay, decay, decarth; 80 - 200 year.	n 25 -14 in) n-caused ature dence,
Oregon white Oak: Woodlands Stands of component is important (full descriptions in	DFW PHS rep	rt p. 158	see v	eb link abov	<i>r</i> e).		
Riparian: The area adjacent to aquatic systems which mutually influence each of	her.						
Instream: The combination of physical, bid life history requirements for instream fish and	d wildlife reso	rces.					
Caves: A naturally occurring cavity, recess, other geological formations and is large enough	, void, or syste gh to contain a	m of interc human.	onre	cted passage	es under the e	arth in soils, rock	t, ice, or
Cliffs: Greater than 7.6 m (25 ft) high and c			1				
Talus: Homogenous areas of rock rubble ra and/or sedimentary rock, including riprap s id	des and mine t	ailings. M	ay be	associated v	vith cims.		
Snags and Logs: Trees are considered sna cavity excavation/use by wildlife. Priority sna are > 2 m (6.5 ft) in height. Priority logs are	gs have a dian	eter at br	ast	eight of > 51	l cm (20 in) in	western wasnin	enable gton and
Shrub-steppe: A nonforested vegetation to but discontinuous layer of shrubs (see Eastsid	de Steppe for s	ites with	ttle	r no snrub o	overj.		
Eastside Steppe: Nonforested vegetation to or a combination of both. Bluebunch Wheatgr Idaho Fescue (Festuca idahoensis), Sandberg (Achnatherum spp.).	ass (Pseudoro	egneria sui	icata.	llis often the	prevailing cov	ver component a	hgrasses, long with
Juniper Savannah: All juniper woodlands							
Note: All vegetated wetlands are by definition a elsewhere.	a priority habi	at but are	noti	cluded in th	nis list because	they are addres	sed
						•	

Wetland name or number		a PID		
	yactery		rn Washington	•
KATING	SUIVINANT	Laste	III Washington	ntia
Name of wetland (or ID #	*): We that	48	Date of site visit: _	0///
Rated by 5	M	rained by Eq	o ogy? Aes No Date of	training
HGM Class used for ratin		Wetlar	has multiple HGM classes?_	YN
NOTE: Form is not o	omplete without th	e figures red	vested (figures can be combin	ned).
Source of base a	erial photo/map	Crocyle	tat.	_
		•	n functions or special char	acteristics)
1. Category of we	etland based on F	UNCTIONS	F	Convertou cosh
				Score for each function based
Categ	ory I - Total score =	22-27		on three
Categ	ory II – Total score	19-21	1	ratings (order of ratings
	ory III - Total score			is not important)
	ory IV - Total score	1 1		important)
			A star divine 12 to	9 = H,H,H
FUNCTION	mproving Hy	drologic	Habitat	8 = H,H,M
的建筑和基本的基础	Water Quality			7 = H,H,L
		propriate rati		7 = H,M,M
Site Potential	H (W) L H	M L	ML	6 = H,M,L
Landscape Potential	H (W) L (H)	ML	ML	6 = M,M,M 5 = H,L,L
Value	H M (L) H	M L I	1 (M) L TOTAL	5 = M,M,L
Score Based on	_	7.	7 19	4 = M,L,L
Ratings	5		, ,,,	3 = L,L,L
	d on SPECIAL CHA	RACTERIS	CALEGORY	
		S-S-S-A-S-A-S-A-S-A-S-A-S-A-S-A-S-A-S-A	Circle the appropriate category	
Vernal Pools			11 111	_
Alkali			I	
Wetland of High Cons	servation Value		I	
Bog and Calcareous F			I	_
Old Growth or Matur	e Forest – slow growii	g	1	_
Aspen Forest			I	
Old Growth or Matur	e Foresi – fast growin	g	11	
Elecatelain forest			11	

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None of the above

Wetland name or number AA

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

				A	I would be a company to the second of the company o	_b
Map of:			44.	4	To answer questions:	Figure #
Cowardin plant classes and classes of emerg	ents				D 1.3, H 1.1, H 1.5	
Hydroperiods (including area of open water	for H 1.3)				D 1.4, H 1.2, H 1.3	
Location of outlet (can be added to map of h	hydroperiods				D 1.1, D 4.1	
Boundary of area within 150 ft of the wetlan	nd (can be ad	ded to and	the	f gure)	D 2.2, D 5.2	
Map of the contributing basin					D 5.3	
1 km Polygon: Area that extends 1 km from polygons for accessible habitat and undistur	entire wetlar bed habitat	d edge - ii	cluc	ling	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed water	rs in basin (fr	om Ecolog	y w	bsite)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in	which wetlar	d is found	(we	osite)	D 3.3	
Scient capture of list of HADES to: THUNK IN						

Riverine Wetlands

Map of:			der ed	To answer questions:	figure#
Cowardin plant classes and classes of emergents				H 1.1, H 1.5	
Hydroperiods				H 1.2, H 1.3	
Ponded depressions				R 1.1	
Boundary of area within 150 ft of the we land (can be a	ded to an	the	fgure)	R 2.4	
Map of the contributing basin				R 2.2, R 2.3, R 5.2	
Plant cover of trees, shrubs, and herbaceous plants				R 1.2, R 4.2	
Width of wetland vs. width of stream (can be added to a	nother figu	re)		R 4.1	
1 km Polygon: Area that extends 1 km from entire wetland polygons for accessible habitat and undisturbed habitat	nd edge - i	nclud	ing	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecolog	y we	bsite)	R 3.1	
Screen capture of list of TMDLs for WRIA in which wetla	d is found	(web	site)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of a visit of the same	MERONE		121		To answer questions:	Figure
Cowardin plant classes and classes of em	ergents				L 1.1, L 4.1, H 1.1, H 1.5	
Plant cover of trees, shrubs, and herbace	ous plants				L 1.2	
Boundary of area within 150 ft of the we	land (can be ac	ded to an	the	figure)	L 2.2	
1 km Polygon: Area that extends 1 km fr polygons for accessible habitat and undi	om entire wetla	id edge - i	nclu	ling	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed w	aters in basin (f	om Ecolo	y w	ebsite)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA	in which wetlar	d is found	We	bsite)	L 3.3	

Slope Wetlands

Map of		100		To answer questions:	Figure 1
Cowardin plant classes and classes of emergents				H 1.1, H 1.5	
Hydroperiods				H 1.2, H 1.3	
Plant cover of dense trees, shrubs, and herbaceous plan	rts			S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceou (can be added to figure above)	plants			\$ 4.1	
Boundary of area within 150 ft of the wetland (can be a	ded to an	the	fgure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetla polygons for accessible habitat and undisturbed habitat	nd edge - i	nclud	ling	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (f	om Ecola	y w	bsite)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which wetla	d is found	(we	bsite)	\$ 3.3	
		1 1			

HGM Classification of Wetland in Eastern Washington

For questions 1-4, the criteria described must apply to the entire unit being rated. If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-4 apply, and go to Question 5. 1. Does the entire unit meet both of the following criter a? _The vegetated part of the wetland is on the water side of the Ordinary High Water Mark of a body of permanent open water (without any plants on the surface) that is at least 20 ac (8 ha) in size At least 30% of the open water area is deeper than 10 ft (3 m) YES - The wetland class is Lake Fringe (Lacustrine Fringe) NO - go to 2 2. Does the entire wetland unit meet all of the following criteria? _The wetland is on a slope (slope can be very gradual), The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface as sheetflow, or in a swale without distinct banks; __The water leaves the wetland without being impounded. YES - The wetland class is **Slope** NO - go to 3 NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 foot deep). 3. Does the entire wetland unit meet all of the following criteria? The unit is in a valley, or stream channel, where it gets nundated by overbank flooding from that stream or river; The overbank flooding occurs at least once every 10 years. YES - The wetland class is Riverine NO - go to 4) NOTE: The Riverine wetland can contain depressions that are filled with water when the river is not flooding. 4. Is the entire wetland unit in a top graphic 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. YES - The wetland class is Depressional NO - go to 5 5. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY

WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-4 APPLY TO DIFFERENT

AREAS IN THE WETLAND UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present

within the wetland unit being scored.

				AA
Vetland	name	or	number	/)

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

HGM classes within the	wetland unit	being ra	ed	17.5	HGM Class to use in rating
	Riverine				Riverine
	pressional				Depressional
	ke Fringe				Lake Fringe
Depressional + Riverine (the boundary	e riverine po	rtion is \	vithi	n	Depressional
Depressiona					Depressional
	Lake Fringe				Riverine

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

Survey of the state of the state of	addion Albi	TEND	DS	用的复数形式的复数形式	Points
Water Quality Functions + Indicators th	at the site fil			adrove water quality	(orby 1 Store per
					beet
D 1.0. Does the site have the potential to im	prove water o	uality?	363		
D 1.1. Characteristics of surface water outflows					
Wetland has no surface water outlet	TOTAL CITE STEELS	-		points = 5	
Wetland has an intermittently flowing ou	tlet			points = 3	
Wetland has a highly constricted permane	ntly flowing ou	let		points = 3	3
Wetland has a permanently flowing, unco	instricted, surfa-	e outlet		points = 1	
D 1.2. The soil 2 in below the surface (or duff lay	er) is true clay o	r true org	anic	(use NRCS definitions of soils) YES = 3 NO = 0	0
1	. Camb	alamada and	1/20		
D 1.3. Characteristics of persistent vegetation (E	mergent, Scrub	snruo, and	/or	points = 5	
Wetland has persistent, ungrazed, vegeta	tion from 1/ to	l. of area	l l	points = 3	D
Wetland has persistent, ungrazed, vegeta	tion from /3 to	1/2 of an	اما	points = 1	3
Wetland has persistent, ungrazed vegetat	ion a ola /10 to	/3 UI al		points = 0	->
Wetland has persistent, ungrazed vegetat		-	\vdash	-	
D 1.4. Characteristics of seasonal ponding or inu This is the area of ponding that fluctuates	NORTH VACE DE	not count	he	rea that is permanently ponded.	
This is the area of ponding that fluctuates	of watiend	or count	1.5 4	points = 3	b
Area seasonally ponded is > ½ total area	os of wotland			points = 1	
Area seasonally ponded is ¼ - ½ total ar Area seasonally ponded is < ¼ total area				points = 0	3
Area seasonally policed 15 1/2 total area	Or Welland		\vdash		9
Total for D 1				Add the points in the boxes above	
Rating of Site Potential If score is: 12-16 = H	6- 11 = M	0- 5	= L	Record the rating on the	ıe first page
D 2.0. Does the landscape have the potenti	4	e water		function of the site?	
B 2.0. Does the landscape have the potenti	It to support	le water	Arce		
D 2.1. Does the wetland receive stormwater dis	charges?			Yes = 1 No = 0	
D 2.2. Is > 10% of the area within 150 ft of the v	vetland in land	ses that g	ener	ate pollutants? Yes = 1 No = 0	
D 2.3. Are there septic systems within 250 ft of t				Yes = 1 (No = 0)	0
D 2.4. Are there other sources of pollutants com	ing into the we	land that	are r	or listed in questions	_
D 2.1- D 2.3? Source				Yes = 1 No = 0	C
Total for D 2				Add the points in the boxes above	1
	4=H 10	2 = M	0	Record the rating on t	he first page
INDENTE OF EMPLICACION OF THE PROPERTY OF THE					
D 3.0. Is the water quality improvement pro	vided by the s	te valual	le t	ociety?	
D 3.1. Does the wetland discharge directly (i.e.,	within 1 mi) to	stream, r	ver.	or lake that is on the 303(d) list?	
D 3.1. Does the mediano discussible outcomy free.	The state of the s	3.,, .	,	Yes = 1 No = 0	-
		la au lans	1	and advertis resource (303/d) list	
D 3.2. Is the wetland in a basin or sub-basin whe	re water quality	is an issu	em:	Yes = 1 : No = 0	(a)
eutrophic lakes, problems with nuisance a				and the state of t	
D 3.3. Has the site been identified in a watershe	d or local plan a	importa	t fo	maintaining water quality (onswer YES	_
if there is a TMDL for the drainage or basi	in in which the v	etland is	pun	Yes = 2 (No = 0)	0
Total for D 3				Add the points in the boxes above	C
Rating of Value if score is:2-4 = H1 = N	0=L		Ī	Record the rating on t	he first page
	1				
1 1 1 1 0 1 0 1 1 0 1 1 1 1 1 1 1 1 1 1	Ilmdata	1		5	
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DEDUKTORA WE			化制度分别 多形的 化氯苯酚化化氯苯酚	
Hydrologic Functions - Indicators that the site functions	toredu	8	flooding and erosion	
D 4.0. Does the site have the potential to reduce flooding and	erosion?			
D 4.1. Characteristics of surface water outflows from the wetlar d:				
Wetland has no surface water outlet		П	points = 8	
Wetland has an intermittently flowing outlet		Н	points = 4	
Wetland has a highly constricted permanently flowing outlet		П	points = 4	LL.
Wetland has a permanently flowing unconstricted surface out	tiet	L	points = 0	7
(If autlet is a ditch and not permanently flowing treat we land	J US INTERI	Ľ	the bettem of the outlet For	
D 4.2. Depth of storage during wet periods: Estimate the height of po	onaing ou	L	deenest part (if dry)	
wetlands with no outlet, measure from the surface of per nane Seasonal ponding: > 3 ft above the lowest point in wetland or	r the surfac		of permanent ponding points = 8	
Seasonal ponding: > 3 ft above the lowest point in wetar of Seasonal ponding: 2 ft - < 3 ft above the lowest point in wetar	and or the			
The wetland is a headwater wetland		П	points = 4	
Seasonal ponding: 1 ft - < 2 ft		П	points = 4	
Seasonal ponding: 6 in - < 1 ft		П	points = 2	6
Seasonal ponding: < 6 in or wetland has only saturated soils		Ц	points = 0	
Total for D 4			Add the points in the boxes above	10
Rating of Site Potential If score is: 12-16 = H 6-11 = M	0-5 = L		Record the rating on th	ne first page
D 5.0. Does the landscape have the potential to support the h	vdrologic	Н	inctions of the site?	
D 5.1. Does the wetland receive stormwater discharges?	Carried Car	H	Yes = 1 No = 0	1
D 5.2. Is > 10% of the area within 150 ft of the wetland in a land use	e that gene	ra	tes runoff? Yes = 1 No = 0	
D 5.3. Is more than 25% of the contributing basin of the wetland cov		-		
D 5.5. IS THOSE CHAIN 25% OF the Continuously 555			Yes = 1 No = 0	1
Total for D 5			Add the points in the boxes above	3
Rating of Landscape Potential If score is:3 = H1 or 2 = M	0 = L		Record the rating on ti	he first page
D 6.0. Are the hydrologic functions provided by the site valual	ble to soc	e	W.	Seat S
D 6.1. The wetland is in a landscape that has flooding problems.		П		
Choose the description that best matches conditions around t	the wetlar	비	peing rated. Do not add points.	
Choose the highest score if more than one condition is met.		$ \cdot $		
The wetland captures surface water that would otherwise flo	w down-g	red	lient into areas where flooding has	
damaged human or natural resources (e.g., houses or salmon	ı redds), Al	ND		
Flooding occurs in sub-basin that is immediately down-g			etland points = 2	
Surface flooding problems are in a sub-basin farther dov	wn-gradier	t	points = 1	5
The existing or potential outflow from the wetland is so const water stored by the wetland cannot reach areas that flood.	trained by	hu	man or natural conditions that the	
			points = 0	1
Explain why There are no problems with flooding downstream of the wetl	land		points = 0	1
		+		
D 6.2. Has the site has been identified as important for flood storage plan?	e or flood	do1	Yes = 2 No = 0	0
Total for D 6			Add the points in the boxes above	1
Rating of Value If score is: 2-4 = H 1 = M 0 = L		+	Record the rating on t	he first paae
MANUAL II SCOLE IS E FT T- IN T- IN				-gr-ipmam
Wetland Rating System for Eastern WA: 2014 Update Rating Form – Effective January 1, 2015			6	

H 1.0. Does the wetland have the potential o provide habitat for many species? H 1.1. Structure of the plant community: Check the Cowardin vegetation classes prisent and cotegories of emergent plants. Size threshold for each category is >= X ac or >= 10% of the wetland if wetland is < 2.5 ac. Aquatic bed Emergent plants 0-12 in (0-30 cm) high are the highest layer and have > 30% cover Emergent plants 1-12-40 in (>30-100 cm) high are the highest layer and have > 30% cover Emergent plants 3-10 in (>30-100 cm) high are the highest layer with >30% cover **Emergent plants 3-10 in (>30-100 cm) high are the highest layer with >30% cover **Emergent plants 3-10 in (>30-100 cm) high are the highest layer with >30% cover **Scrub-shrub (areas where shrubs have >30% cover) **Forested (areas where shrubs have >30% cover) **Forested (areas where trees have >30% cover) **Forested (areas whe	These guestions apply to Wetland	IS 97 BII TIGHT CHESSES.	(only 1 score per
H 1.1. Structure of the plant community: Check the Cowardin vegetation classes present and categories of emergent plants. Size threshold for each category is >> % aco >> 10% of the wetland if wetland is <2.5 ac. Aquatic bed	MABITAT FUNCTIONS - Indicators that site functions to	provide important habitat	
Check the Cowardin vegetation classes present and cotegories of energent plants. Size threshold for each category is >= N ac or >= 10% of the wetland if wetland is < 2.5 ac. Aquatic bed Emergent plants 0-12 in (0-30 cm) high are the highest layer and have > 30% cover Emergent plants >12-40 in (>30-100 cm) high are the highest layer with >30% cover Emergent plants >40 in (>100 cm) high are the highest layer with >30% cover Forested (areas where shrubs have >30% cover) Forested (areas where trees have >30% cover) # 1.2. is one of the vegetation types Aquatic Bee? # 1.3.1. Does the wetland have areas of open water (with out emergent or shrub plants) over at least % ac OR 10% of its area during the March to early June OR in August to the end of september? Answer YES for Lake Fringe wetlands. # 1.3.2. Does the wetland have an intermittent or permanent, and trungs stated stream within its home. The plants of the same species can be combined to meet the size breshold. You do not have to nome the species. Count the number of plant species in the species can be combined to meet the size breshold. You do not have to nome the species. Count the number of plant species in the wetland that cover at least 10 ft. Different patches of the same species can be combined to meet the size breshold. You do not have to nome the species. Count the number of plant species in the wetland that cover at least 10 ft. Different patches of the same species can be combined to meet the size breshold. You do not have to nome the species. Count the number of plant species in the wetland that cover at least 10 ft. Different patches of the same species can be combined to meet the size breshold. You do not have to nome the species. Count the number of plant species in the species of pant structures (described in H 1.1), and unvegetated areas (open water or myelfats) is high, moderate, low or none. **None = 0 points** **None = 0 p	H 1.0. Does the wetland have the potential to provide habit	at for many species?	
Emergent plants 0-12 in (0-30 cm) high are the highest layer and have > 30% cover Emergent plants > 40 in (> 100 cm) high are the highest layer with > 30% cover Emergent plants > 40 in (> 100 cm) high are the highest layer with > 30% cover Emergent plants > 40 in (> 100 cm) high are the highest layer with > 30% cover Emergent plants > 40 in (> 100 cm) high are the highest layer with > 30% cover Emergent plants > 40 in (> 100 cm) high are the highest layer with > 30% cover Emergent plants > 40 in (> 100 cm) high are the highest layer with > 30% cover Forested (areas where shrubs have > 30% cover) Forested (areas where trees have > 30% cover) Forested (areas where trees have > 30% cover) # 1.3. Does the wettand have areas of open water (witrout emergent or shrub plants) over at least ¼ ac OR 10% of its area during the March to early June OR in August to the end of September? Answer YES for Lake Fringe wettands. # 1.3.1. Does the wetland have an intermittent or permanent, and investated stream within its boundaries, or along one side, over at least ¼ ac or 10% of its area? Answer yes only if # 1.3.1 is No. # 1.4. Richness of plant species in the wetland that cover at least 10 it. Different patches of the same species can be combined to meet the size threshold. You do not have to nome the species. Do not include Eurasian miljoil, reed canonygrass, purple loosestrife. Russian olive, Phragmites, Canadian thiste, yellow-flag iris, and saftcedar (Tamarisk) # of species Decide from the diagrams below whether interspersion a mong types of plant structures (described in H 1.1), and unvegetated areas (open water or mudflats) is high, moderate, low or none. Use map of Cowardin and emergent plant classes prepared for question. If 1.1 and map of open water from H 1.3. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points All three diagrams in this row are High = 3 points	Check the Cowardin vegetation classes present and categor category is >= ¼ ac or >= 10% of the wetland if wetland is <	ries of emergent plants. Size threshold for each < 2.5 ac.	
Emergent plants > 40 in (> 100 cm) high are the high set layer with > 30% cover Scrub-shrub (areas where shrubs hale > 30% cover) Forested (areas where trees have > 30% cover) 1 checks: points = 2 2 checks: points = 2 1 checks: points = 2 2 checks: points = 0 1 check: points = 0 1 checks: points = 0 1 check: points = 0 1	Emergent plants 0-12 in (0-30 cm) high are the highest	t layer and have > 30% cover	
Forested (areas where shrubs have >30% cover) Forested (areas where trees have >30% cover) Forested (areas where trees have >30% cover) H 1.2. Is one of the vegetation types Aquatic Bed? H 1.3.1. Does the wetland have areas of open water (witrout emergent or shrub plants) over at least ¼ ac OR 10% of its area during the March to early June OR in August to the end of September? Answer YES for lake Fringe wetlands. H 1.3.2. Does the wetland have an intermittent or permanent, and Invegetated stream within its boundaries, or along one side, over at least ¼ ac or 10% of its area? Answer yes only if H 1.3.1 is No. Yes = 3 No = 0 H 1.4. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft. Different patches of the same species can be combined to meet the size threshold. You do not have to name the species. Count the number of plant species in the wetland that cover at least 10 ft. Different patches of the same species can be combined to meet the size threshold. You do not have to name the species. Count the number of plant species in the wetland that cover at least 10 ft. Different patches of the same species can be combined to meet the size threshold. You do not have to name the species. Count the number of plant species points = 2 4.9 species: po	Emergent plants >12-40 in (>30-100 cm) high are the	nighest layer with >30% cover	
Forested (areas where trees have 33)% cover) 1 checks: points = 2 2 checks: points = 2 1 checks: points = 0 2 checks: points = 0 1 checks: points = 0 2 checks: points = 0	Emergent plants > 40 in (> 100 cm) high are the highes	st layer with \$30% cover	
# 1.2. Is one of the vegetation types Aquatic Bed? # 1.3. Surface water # H 1.3.1. Does the wetland have areas of open water (without emergent or shrub plants) over at least ¼ ac OR 10% of its area during the March to early June OR in August to the end of September? Answer YES for lake Fringe wetlands. # H 1.3.2. Does the wetland have an intermittent or permaient, and mivegetated stream within its boundaries, or along one side, over at least ¼ ac or 10% of its area? Answer yes only if H 1.3.1 is No. Yes = 3 No = 0 # H 1.4. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft. 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 Eurasian milfoli, read canatygrass, purple posestrife. Russian olive, Phragmites, Canadian thistle, yellow-flag iris, and saltcedar (Tamarisk) # of species		4 1 1	
H 1.2. Is one of the vegetation types Aquatic Bee? H 1.3. Surface water H 1.3.1. Does the wetland have areas of open water (without emergent or shrub plants) over at least ¼ ac OR 10% of its area during the March to early June OR in August to the end of September? Answer YES for Lake Fringe wetlands. H 1.3.2. Does the wetland have an intermittent or permanent, and unvegetated stream within its boundaries, or along one side, over at least ¼ ac or 10% of its area? Answer yes only if H 1.3.1 is No. Yes = 3 No = 0 H 1.4. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft. Different patches of the same species can be combined to meet the size threshold. You do not have to norm the species. Do not include Eurasian milifoli, reed canarygrass, purple loosestrife. Russian oilive, Phragmites, Canadian thistle, yellow-flag iris, and saltcedar (Tamarisk) # of species	Forested (areas where trees have >30% cover)	2 who also was in the state of	
H 1.3. Interspersion of habitats Decide from the diagrams below whether interspersion and unvegetated areas (open water or mydflats) is high, inoderate, low or none. H 1.5. Interspersion of habitats Decide from the diagrams in this row are High = 3 points All three diagrams in this row are High = 3 points H 1.3. If you have four or more plants classes or three classes and open water, the rating is always high. H 1.5. Intered clagrams in this row are High = 3 points		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u>
H 1.3.1. Does the wetland have areas of open water (without emergent of shrub plants) over at least X ac OR 10% of its area during the March to early June OR in August to the end of September? Answer YES for Lake Fringe wetlands. H 1.3.2. Does the wetland have an intermittent or permanent, and investated stream within its boundaries, or along one side, over at least X ac or 10% of its area? Answer yes only if H 1.3.1 is No. Yes = 3 No = 0 H 1.4. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft. 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 Eurasian milifoil, reed canalygrass, purple posestrife, which is perfectly provided in thistic, yellow-flag iris, and saltcedar (Tamarisk) # of species Species: points = 2 4-9 species: points = 0 H 1.5. Interspersion of habitats Decide from the diagrams below whether interspersion a mong types of plant structures (described in H 1.1), and unvegetated areas (open water or mudflats) is high, moderate, low or none. Use map of Cowardin and emergent plant classes prepared for question: # 1.1 and map of open water from H 1.3. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points All three diagrams in this row are High = 3 points Moderate = 2 points	H 1.2. Is one of the vegetation types Aquatic Bed?	Yes = 1 No = 0	0
Count the number of plant species in the wetland that cover at least 10 ft. 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 Eurasian milfoil, reed canarygrass, purple thistle, yellow-flag iris, and saltcedar (Tamarisk) # of species # of species : points = 2 4-9 species: points = 2 4-9 species: points = 0 * of species in points = 2 4-9 species: points = 0 * of species in points = 2 4-9 species: points = 0 * of species in points = 2 4-9 species: points = 0 * of species in points = 0 * Figure * Figure * Figure * On one in the diagrams below whether interspersion a mong types of plant structures (described in H 1.1), are none. * Use map of Cowardin and emergent plant classes prepared for questions in the rating is always high. * None = 0 points	H 1.3.1. Does the wetland have areas of open water (without 10% of its area during the March to early June OR for Lake Fringe wetlands. H 1.3.2. Does the wetland have an intermittent or permaner.	in August to the end of September? Answer YES ves = 3 points a go to H 1.4 No = go to H 1.3.2 ent, and unvegetated stream within its boundaries, area? Answer yes only if H 1.3.1 is No.	3
Count the number of plant species in the wetland that cover at least 10 ft. 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 Eurasian milfoil, reed canarygrass, purple thistle, yellow-flag iris, and saltcedar (Tamarisk) # of species # of species : points = 2 4-9 species: points = 2 4-9 species: points = 0 * of species in points = 2 4-9 species: points = 0 * of species in points = 2 4-9 species: points = 0 * of species in points = 2 4-9 species: points = 0 * of species in points = 0 * Figure * Figure * Figure * On one in the diagrams below whether interspersion a mong types of plant structures (described in H 1.1), are none. * Use map of Cowardin and emergent plant classes prepared for questions in the rating is always high. * None = 0 points	H 1 A Richness of plant species		
H 1.5. Interspersion of habitats Decide from the diagrams below whether interspersion a mong types of plant structures (described in H 1.1), and unvegetated areas (open water or mydflats) is high, noderate, low or none. Use map of Cowardin and emergent plant classes prepared for questions of 1.1 and map of open water from H 1.3. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are High = 3 points	Count the number of plant species in the wetland that core species can be combined to meet the size threshold. You do not include Eurasian milfoil, reed canarygrass, purple thistle, yellow-flag iris, and saltcedar (Tamarisk)	o not have to name the species. osestrife, Russian olive, Phragmites, Canadian Scoring: > 9 species: points = 2 4-9 species: points	ı
Decide from the diagrams below whether interspersion a mong types of plant structures (described in H 1.1), and unvegetated areas (open water or mudflats) is high, moderate, low or none. Use map of Cowardin and emergent plant classes prepared for questions in 1.1 and map of open water from H 1.3. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are High = 3 points			
All three diagrams in this row are High = 3 points	Decide from the diagrams below whether interspersion am and unvegetated areas (open water or mudflats) is high, in Use map of Cowardin and emergent plant classes prepared	nong types of plant structures (described in H 1.1), oderate, low or none. I for question: # 1.1 and map of open water from	Figure
All three diagrams in this row are High = 3 points			
High = 3 points	None = 0 points Low = 1 point	Moderate = 2 points	
Ripa ian braided channels with 2 classes			dan d
		Riparian braided channels with 2 classes	

etland name or numberA_A					5
H 1.6. Special habitat features	t in the wetland	. The numbe	of checks is the number	of points.	-
Loose rocks larger than 4 in OR large	downed, wood	y debris (> 4	n diameter) within the ar	ea or surrace	
ponding or in stream. Cattails or bulrushes are present with	in the wetland				
Standing snags (diameter at the bott	om > 4 in) in the	wetland or v	thin 30 m (100 ft) of the	edge.	
Franciant or shrub vegetation in are	s that are perm	anently injunc	ipted/ponded.	- 1	
Stable steep banks of fine material t	at might be use	d by beaver o	muskrat for denning (>	45 degree	
slone) OR signs of recent beaver act	vity			1	
Invasive species cover less than 20%	in each stratum	of vegetatio	(canopy, sub-canopy, sh	rubs,	3
herbaceous, moss/ground cover)					8
Total for H 1	/		Add the points in the b		8
Rating of Site Potential If score is: 15-18 = H	7-14 = M	0-6 = L	Record the rating on th	ne first page	
H 2.0. Does the landscape have the potenti	I to support h	abitat furcti	n of the site?		
U. 7.1. Accessible habitat (only area of habitat at	utting wetland	If total acces	sible habitat is:	911 -	
Calculate: 20% undisturbed habitat	+ [(% modera	te and low in	tensity land uses)/2]	<u>- 4 % </u>	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon				points = 3	
20-33% of 1km Polygon				points = 2)
10-19% of 1km Polygon				points = 1	2
<10% of 1km Polygon				points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon arou	nd wetland.				
Calculate: 40% undisturbed habitat 1	_ + [(% moder	te and low in	tensity land uses)/2] 💆	= 45%	
Undisturbed habitat > 50% of Polygon				points = 3	
Undisturbed habitat 10 - 50% and in 1-3 p	atches			points = 2	
Undisturbed habitat 10 - 50% and > 3 pat				points = 1	>
Undisturbed habitat < 10% of Polygon	4			points = 0	- Cian,
H 2.3. Land use intensity in 1 km Polygon:					
> 50% of Polygon is high intensity land us	e		F	oints = (- 2)	~
Does not meet criterion above				points = 0	Capali
H 2.4. The wetland is in an area where annual ra	infall is less tha	n 12 in, and it	s water regime is not infl	uenced by	
irrigation practices, dams, or water contr	ol structures. Ge	nerally, this r	neans outside boundaries	OJ	
reclamation areas, irrigation districts, or	eservoirs		Yes	= 3 MOEU	
Total for H 2			Add the points in the l		(4)
Rating of Landscape Potential If score is: 4-9	= H1-3 = N	1<1=L	Record the rating on t	he first page	
					
H 3.0. Is the habitat provided by the site va	uable to socie	y?	:		
H 3.1. Does the site provide habitat for species	alued in laws, r	egulations o	policies? Choose the high	hest score	
that applies to the wetland being rated				points = 2	
Site meets ANY of the following criteria:	1 400 . 1			points - 2	
- It has 3 or more priority habitats with	in too m (see A	ppenuix b	n or animal on state or fo	deral lists)	
- It provides habitat for Threatened or	Engangered spi	cies (any pia	of Billings on State of it	300000	
 It is mapped as a location for an indi It is a Wetland of High Conservation 	Value as determ	ned by the C	epartment of Natural Res	ources	
It is a Wetland of riigh conservation It has been categorized as an import:	nt habitat site i	h a local of re	gional comprehensive pla	an, in a	
Shoreline Master Plan, or in a waters	hed plan	1 0 ,002.0			
Site has 1 or 2 priority habitats within 100	m (see Appen	dix B)		points = 1	1
Site does not meet any of the criteria abo				points = 0	
Rating of Value If score is: 2 = H 1 = M	_0=L R	ecord the rati	ing on the first page		8
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CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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

Walland Brown	Category
Check off any oritorio that apply to the wetland. Circle the category when the appropriate criterio are met.	
SC 1.0. Vernal pools	
is the wetland less than 4000 ft ² , and doles 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 groundwate	r
input.	1
Wetland plants are typically present only in the spring, the summer vegetation is typically upland	- 1
annuals. If you find perennial, obligate, wetland plants, the wetland it probably NOT a vernal pool.	
— The soil in the wetland is shallow [< 1 ft (30 cm)deep and is undertain by an impermeable layer such a	s
basait or clay.	1
surface water is present for less than 120 days during the wet season.	
Yes - Go to SC 1.1 No = Not a vernal poo	5
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 characteristic	5
the state of the s	
SC 1.2. Is the vernal pool in an area where there are at least 3 separate aquatic resources within 0.5 mi (other westlands rivers lakes etc.)? Yes = Category ii No = Category ii	Cat. II
wetlands, rivers, lakes etc.)?	Cat. III
	1.57555
SC 2.0. Alkali wetlands	
Does the wetland meet one of the following criteria?	
The wetland has a conductivity > 3i0 mS/cm.	
The wetland has a conductivity between 2.0 and 3 0 mS, and more than 50% of the plant cover in the	e
wetland can be classified as "alkali" species (see Table 4 for ilst of clants found in alkali systems).	
- If the wetland is dry at the time of your field visit, the central part of the area is covered with a layer	of
salt.	
OR does the wetland unit meet two of the following three sub-criteria	
Salt encrustations around more than 75% of the edge of the wetland	
More than ¾ of the plant cover consists of species listed on Table 4	
A pH above 9.0. All alkali wetlands have a high pH but please note that some freshwater wetlands	Cat. 1
may also have a high pH. Thus, pH alone is not a good indicator of alkali wetlands.	7
Yes = Category I No= Not an alkali wetlam	đ^
	645 C. F. & T. & D. C.
A STATE OF THE STA	
SC 3.0. Wetlands of High Conservation Value (WHCV)	h
SC 3.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of His Conservation Value? Yes—Go to SC 3.2 No—Go to SC 3.2	<u> </u>
Conservation Value? SC 3.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
SC 3.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation value. Yes = Category No = Not a WHC	, Cat. I
SC 3.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	_
Yes - Contact WNHP/WDNR and go to SC 3.4 No = Not a WHC	l Cv
ABC - FULLINEL MAINLE ARDING WITH SO FO 25 254 (40 - 140 A 141 A	
cc 3.4. Has WIDNIP identified the wetland within the S/T/R as a Wetland of High Conservation Value and it is listed	T
SC 3.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and it is listed on their website? Yes = Category I No =Not a WHC	7 V

SC 4.0 Bogs and Calcareous Fens Does the wetland (or any part of the we					
Does the wetland (or any part of the we			\vdash		
DOES THE MEDIANO for any barr or the w	elland unit) meet	both the	rite	ia for soils and vegetation in bogs or	
colographic fans? Use the key helow to i	dentify if the wet	and is a b	bg or	calcareous fen. If you answer yes	
you will still need to rate the wetland	based on its fund	tions.	1 1		
SC 4.1. Does an area within the wetland have o	reanic soil horizo	ns (i.e., la	ers	organic soil), either peats or	
mucks, that compose 16 in or more of t	he first 32 in of t	he soil pro	file?	See Appendix C for a fleia key to	
identify organic soils		1	YE	- Go to SC 4.3 No - Go to SC 4.2	
cc 4.3. Door an area within the wetland have o	reanic soils, eith	er peats or	muc	ks, that are less than 16 in deep over	
bedrock or an impermeable hardpan su	ch as clay or vole	anic ash, d	r th	ttare floating on top of a lake of	
nond?	111	Yes - 0	o to	SC 4.3 No = is not a pog for rating	
SC 4.3. Does an area within the wetland have r	nore than 70% co	ver of mo	ses	ground level AND at least 30% of	
the total plant cover consists of species	in Table 5?		Yes	Category bog No - Go to SC 4.4)	
NOTE: If you are uncertain about the ex	tent of mosses i	the unde	rsto	y you may substitute that criterion	
by measuring the pH of the water that	seeps into a hole	dug at lea	t 16	in deep. If the pH is less than 5.0	
and the plant species in Table 5 are pre	sent, the wetlan	is a bog.			
sc & & Ican area with nexts or mucks forested	(> 30% cover) w	kh subalpi	ne fi	, western red cedar, western	
hemlock, ladgepole pine, quaking asper	n Engelmann spi	uce, or we	stert	white pine, AND any of the species	Cat. I
(or combination of species) listed in Tal	e 5 provide mo	e than 30	6 of	he cover under the canopy?	Call
for combination or epicological			Yes	Category I bog No - Go to SC 4.5	
SC 4.5. Do the species listed in Table 6 compris	elat least 20% of	the total p	lant	cover within an area of peats and	
mucks?	Yes = Is a Calca	eous Fen	or p	urpose of rating No - Go to SC 4.6	
SC 4.6. Do the species listed in Table 6 compris	e at least 10% of	the total p	lant	over in an area of peats and mucks,	
AND one of the two following condition	s is met:				
- Mari denosits (calcium carbonate (C	aCO ₃) precipitati] occur or	the	soil surface or plant stems	Cat. I
— The pH of free water is ≥ 6.8 AND el	ectrical conducti	vity is ≥ 20	b us/	cm at multiple locations within the	
wetland	Yes = Is a Cate	gory I calc	агео	s fen No = Is not a calcareous fen	
A1 A		o rupado T	4.540		
SC 5.0. Forested Wetlands					
Does the wetland have an area of	forest rooted w	thin its b	bun	ary that meets at least one of	
the following three criteria? (Conti	nue only if you	have iden	tifie	that a forested class is present	
in question H 1.1)					
	was floodalaii				
مراح ساخ سناخيين من السينة على سينة السينة ا			f ar i	tream	
- The wetland is within the 100	ico nosepian	of a rive	or	tream	
- Aspen (Populus tremuloides) re	presents at lea	st 20% of	the	total cover of woody species	
Aspen (Populus tremuloides) re	epresents at lea	st 20% of s smaller	the	total cover of woody species 2.5 ac) that are "mature" or	
- Aspen (Populus tremuloides) re	epresents at lea	st 20% of s smaller	the	total cover of woody species 2.5 ac) that are "mature" or	
 Aspen (Populus tremuloides) re There is at least ¼ ac of trees ("old-growth" according to the (see definitions in question H3. 	epresents at lea even in wetland definitions for 10	st 20% of s smaller these price	the tha rity	total cover of woody species 2.5 ac) that are "mature" or habitats developed by WDFW	
 Aspen (Populus tremuloides) re There is at least ¼ ac of trees ("old-growth" according to the (see definitions in question H3. 	epresents at lea even in wetland definitions for 10	st 20% of s smaller these price	the tha rity	total cover of woody species 2.5 ac) that are "mature" or	
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Appendix B: WDFW Priority Habitats in Eastern Washington

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

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

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report).
- Old-growth/Mature forests: Old-growth east of Cascade crest Stands are highly variable in tree species composition and structural characteristics due to the influence of fire, climate, and soils. In general, stands will be >150 years of age, with 10 trees/ac (25 trees/ha) that are > 21 in (53 cm) dbh, and 1-3 snags/ac (2.5-7.5 snags/ha) that are > 12-14 in (30-35 cm) diameter. Downed logs may vary from abundant to absent. Canonics may be single or multi-layered. Evidence of human-caused alterations to the stand will be absent or so slight as to not affect the ecosystem's essential structures and functions. Mature forests = Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west and 80-160 years old east of the Cascade crest.
- Oregon White Oak: Woodland stands of pure oak or oak/conifer as o ciations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 see web link above).
- Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- Cliffs: Greater than 25 ft (7.6 m) high and occurring be ow 5000 ft elevation.
- Talus: Homogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 12 in (30 cm) in eastern Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- Shrub-steppe: A nonforested vegetation type consisting of one or more layers of perennial bunchgrasses and a conspicuous but discontinuous layer of shrubs (see Eastside Steppe for sites with little or no shrub cover).
- Eastside Steppe: Nonforested vegetation type dominated by broadleaf herbaceous flora (i.e., forbs), perennial bunchgrasses, or a combination of both. Bluebunch wheatgrass (*Pseudoroegneria spicata*) is often the prevailing cover component along with Idaho fescue (*Festuca idahoensis*), Sandberg bluegrass (*Poa secunda*), rough fescue (*F. campestris*), or needlegrasses (*Achnatherum* spp.).
- Juniper Savannah: All juniper woodlands.

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

Wetland Rating System for Eastern WA: 2014 Update

Effective January 1, 2015

Appendix B

