

## Sewall Wetland Consulting, Inc.

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

June 6, 2022

Matt Willard Haybrook Landholdings, LLC PO Box 1359 Ellensburg, Washington 98926

RE:

Critical Area Report - Parcel #639136

Kittitas County, Washington

SWC Job #22-142



Kittitas County CDS

Dear Matt,

This report describes our observations of any jurisdictional wetlands, streams and/or buffers on or within 250' of Parcel #639136.



Above: Vicinity Map of site (Parcel #639136)

The irregular shaped 14.09 acre parcel is located on the east side of Look Road and within portions of Sections 25, Township 18 North, Range 18, and Section 30, Township 18 North, Range 19 East of the W.M in Kittitas County, Washington.



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

#### **METHODOLOGY**

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site and areas within 250' of the site on May 24, 2022.

The site was reviewed using methodology described in the **Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)** (USACOE September 2008) as required by the US Army Corps of Engineers starting in June of 2009. This is the methodology currently recognized by Kittitas County for wetland determinations and delineations. 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.

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

The ordinary high water mark (OHWM) of any streams was located based upon the criteria described in the Washington Department of Ecology draft publication Determining The Ordinary High Water Mark on Streams In Washington State (WADOE Publication 08-06-001, March 2008).

#### **OBSERVATIONS**

Existing Site Documentation.

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

#### Kittitas Taxsifter Website

The Kittitas Taxsifter website with streams and wetland layers activated depicts a serpentine, narrow emergent wetland in the location of Wilson Creek on the east side of the site. This was taken from the USFWS NWI map.



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

### **National Wetlands Inventory (NWI)**

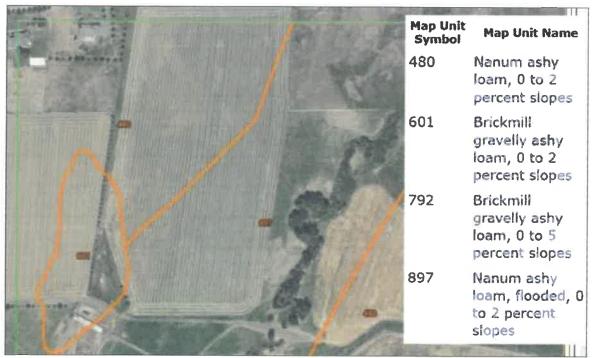
The NWI map depicts the same wetland as the Kittitas County website. In fact the Taxsifter mapping was taken from the NWI maps. These wetlands were interpreted from aerial photographs by the US Fish and Wildlife Service using 2017 aerial photographs with no ground-truthing.



Above: NWI map of the area of the site

#### **Soil Survey**

According to the NRCS Soil Mapper website, the site is mapped as containing Brickmill gravelly, and Nanum ashy loam. Nanum soils are "somewhat poorly drained" and Brickmill soils are moderately well drained. All of these soils are formed in alluvium with some volcanic ash in the upper part. None of these soils are considered "hydric" or wetland soils according to the publication Hydric Soils of the United States (USDA NTCHS Pub No.1491, 1991).



Above: NRCS soil map of the site.

#### **WADNR FPARS website**

According to the WADNR FPARS website with stream types layers activated depicts Wilson Creek on the eastern edge of the site as a Type S (Shoreline) water.



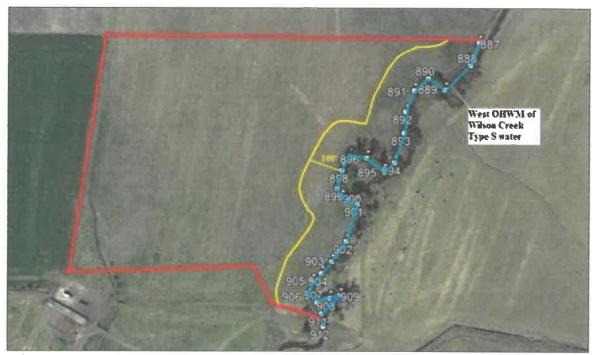
Above: WDNR Fpars Stream Mapping of the area of the site.

#### Field observations

The site consists of a agricultural pasture used to grow timothy hay and alfalfa. The site is bordered by an alfalfa field to the west and north, actively grazed pasture to the south, and Wilson Creek on the eastern edge of the site.

The site is routinely flood irrigated. However, flood irrigation was not being conducted on the site during our site inspection.

The site at the time of our field inspection was planted in timothy hay. The eastern side of the site contains a narrow forested area along Wilson Creek. This area contains black cottonwood, crack willow, Hawthorne, rose, snowberry and Oregon grape.



Above: Gps mapping of the west ordinary high water mark of Wilson Creek, a Type S water. The 100' buffer is also depicted in yellow.

Soil pits excavated throughout the site revealed a moist, silt loam with a color of 10YR 2/2. No evidence of wetland hydrology was present on the site.

No wetlands were found on or near the site. Wilson Creek is a mapped Shoreline of the State (Type S water). The western OHWM of the creek was gps located with points 887-912. No flags were placed as the stream edge is actively grazed by cattle which would remove the flagging.

According to the Kittitas County Shoreline Master Program, Wilson Creek has a shoreline designation of Rural Conservancy. Shoreline waters 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 Designation	Type S Standard Shoreline
Designation	Buffer Width (feet)
Urban Conservancy	100
Shoreline Residential	100
Rural Conservancy	100
Natural	150

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

Sincerely,

Sewall Wetland Consulting, Inc.

Ed Sewall

Senior Wetlands Ecologist PWS #212

Attached: Data sheets

#### REFERENCES

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

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

Kittitas County Municipal Code

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

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

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

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

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

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

Sword of site

Project/site: Haybrank	City/C	ounty:	Kit	rtulas	Sampling Date:	5-19-22
Applicant/Owner:  Investigator(s): EX Sewell	•			State: W	Sampling Point:	D P#1
Investigator(s): EX Sewell	Sectio	n. Towns	hip. Ra	nge:		
Landform (hillslope, terrace, etc.):						no /94 h
Subregion (LRR):		31.3				
Soil Map Unit Name:					ssification:	
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Are Vegetation, Soil, or Hydrology					es" present? Yes	/ N.
Are Vegetation, Soil, or Hydrology		1	ı	eeded, explain any an		NO
SUMMARY OF FINDINGS - Attach site map			1		•	atures, etc.
Hydrophytic Vegetation Present? Yes						
Hydric Soil Present? Yes	do . /	is the S	85		_	
Wetland Hydrology Present? Yes		within a	Wetlar	nd? Yes_	No	-
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VEGETATION Use scientific names of plan						
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3				Total Number of Do Species Across All		/ (B)
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3.					x1=	
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5					x 3 =	
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8					arks or on a separate	
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2				be present, unless of	listurbed or problemat	ic.
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Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Depleted Matrix (F2) Thick Dark Surface (A11) Depleted Dark Surface (F5) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Surface Water (A1) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4 Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Surface Soil Cracks (B6) Present? Yes No Depth (inches): Surface Water Present? Wester Alathe (A2) Surface Soil Cracks (B6) Depth (inches): Depth (inches): Surface Water Present? Yes No Depth (inches): Wettand Hydrology Present? Yes No Depth (inches): Wetdand Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Hydrogen Sulfide (A4)					E1)	1		•
Stratified Layers (A5) (LRR C)	. ,				-			•
1 cm Muck (A9) (LRR D) Redox Dark Surface (F5) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F6) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present): Type: Depth (inches): Depth (inches):  Depth (inches):  Primary Indicators (ininimum of one required: check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Salturation (A3) Aqualic Invertebrates B13) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Thin Muck Surface (C7) Water-Stained Leaves (B9) Drift Deposits (B9) Duter (Explain in Remarks)  Pepth (inches): Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturati					-1			. ,
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Deposits (F2) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes		•			5)	1	case (exhibit il)	(GIIGINS)
Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present): Type: Depth (inches):  Remarks:    Hydric Soil Present? Yes No   Depth (inches):   Hydric Soil Present? Yes No   Depth (inches):   Hydric Soil Present? Yes No   Depth (inches):   Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		•				1		
Sandy Mucky Mineral (S1)		, ,				1	3 adiostor of hands 1	
		-			)			
Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes			vernal Pool	s (F9)				
Type: Depth (inches): Hydric Soll Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches)							unless disturbed or	problematic.
Popth (inches):		ent):						
Nation   Presente	Type:				87			
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  Salt Crust (B11)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B2) (Riverine)  Sediment Deposits (B3) (Riverine)  Sediment Deposits (B1) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Tield Observations:  Surface Water Present?  Yes  No  Depth (inches):  Sediment Deposits (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)  Drainage Patterns (B1	Depth (inches):						Hydric Soll Present?	Yes No
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)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Sediment Deposits (B3) (Riverine)  Drift Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drift Deposits (B2) (Riverine)  Drift Deposits (B13) (Riverine)  Drift Deposits (B13) (Riverine)  Drift Deposits (B13) (Riverine)  Drift Deposits (B13) (	Remarks:							
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)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B2) (Nonriverine)  Drift Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Recent Iron Reduction in Tilled Soils (C6)  Saturation Visible on Aerial Imagery (B7)  Water Stained Leaves (B9)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Drift Deposits (B3) (Riverine)  Drift Deposits (B3) (Riverine)  Drift Deposits (B3) (Riverine)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C4)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Wetland Hydrology Present? Yes No Depth (inches):  Wetland Hydrology Present? Yes No Depth (inches):  Wetland Hydrology Present? Yes No No Depth (inches):  Wetland Hydrology Present? Yes No No No Depth (inches):  Wetland Hydrology Present? Yes No								<del></del>
Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Water Marks (B1) (Nonriverine)  Sediment Deposits (B3) (Riverine)  Drift Deposits (B3) (Riveri		dore*						
Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Presence of Reduced Iron (C4  Surface Soil Cracks (B6)  Recent Iron Reduction in Tilled Soils (C6)  Saturation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  Depth (inches):  Water Table Present?  Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			la obook all that are t	Δ .	I.			
High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10)  Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4 Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Thin Muck Surface (C7) Water-Stained Leaves (B9) Other (Explain in Remarks)  Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Constitution of the state of th	n or one required	- (************************************					
Saturation (A3)			Salt Crust	(B11)			Water Marks	(B1) (Riverine)
Water Marks (B1) (Nonriverine)	High Water Table (A2)		Biotic Crus	t (B12)	: 1		Sediment De	posits (B2) (Riverine)
Water Marks (B1) (Nonriverine)	Saturation (A3)		Aquatic Inv	ertebrates	B13)		Drift Deposits	s (B3) (Riverine)
Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches):  Water Table Present?  Yes No Depth (inches):  Wetland Hydrology Present? Yes No Depth (inches):  (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Marks (B1) (Nor	riverine)		1	. 11			
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4 Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Water Table Present?		•				iving Root	_	. ,
Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C							_	` '
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Shallow Aquitard (D3) FAC-Neutral Test (D5) Staturations:  Surface Water Present?					100	1		
Water-Stained Leaves (B9)  Other (Explain in Remarks)  FAC-Neutral Test (D5)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		-			11	aula (Co		
Field Observations:  Surface Water Present? Yes No Depth (inches):	<del></del>		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1	(A)			• • •
Surface Water Present? Yes No Depth (inches):		(¤A)	Other (Exp	tain in Rem	arks)		FAC-Neutral	Test (D5)
Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Field Observations:				11			
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Water Present?	Yes N	NoDepth (inc	hes):				
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table Present?	Yes N	Vo Depth (inc	hes):				
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Present?					Watts	nd Hydrolom Process?	You No.
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Dopui (inc			11609	yo.vivyy rieseliti	. 23 NO
Remarks:	Describe Recorded Data (s	tream gauge, mo	nitoring well, aerial p	hotos, prev	ious ins	ections), i	f available:	
Remarks:				·				
	Remarks:							
	t toerfelling,				4.			
					1			
1 —1					i			

west side & sik

Project/Site: Hay brook		City/County:	hor	tutus	Sampling Date: 5.11-2:
Annlicant/Owner:					Sampling Point: DP# 2
Applicant/Owner:  Investigator(s):  S1 SemM		Section, Toy	mship, Ra	nge:	
Landform (hillslope, terrace, etc.):			月 : 第		
Subregion (LRR):					
Soil Map Unit Name:					ification:
Are climatic / hydrologic conditions on the site typical f					
					" present? Yes No
Are Vegetation, Soil, or Hydrology			1.11	seded, explain any ansi	
Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS — Attach site n					-
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No	ls the	Sampled		
Hydric Soil Present? Yes  Wetland Hydrology Present? Yes	No No	withi	a Wetlar	nd? Yes	No
Remarks:					
VEGETATION – Use scientific names of	plants.				
		Dominant		Dominance Test wo	orksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant That Are OBL, FACV	
2.				Hat We Obt, FACT	v, or PAC(A)
3.				Total Number of Don Species Across All S	,
4.					
		= Total Cov	er	Percent of Dominant That Are OBL, FACV	
Sapling/Shrub Stratum (Plot size:)				mat Are Obl., I Act	v, or the.
1			1	Prevalence Index w	
2					f: Multiply by:
3					x1=
4		-	-		x 2 = x 3 =
5		-T-+10-	_		x3
Herb Stratum (Plot size:		= Total Co		UPL species	
Herb Stratum (Plot size:)  1. Phum pouls	180		AM		(A) (B)
2					
3					ex = B/A =
4				Hydrophytic Vegeta	
5			-	Dominance Test	
6			+	Prevalence Inde	daptations1 (Provide supporting
7			-	data in Rema	dapiations (Provide supporting trks or on a separate sheet)
8				Problematic Hyd	rophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)		_= Total Cov	(F)		
1			Ш		soil and wetland hydrology must
2.			1	be present, unless di	isturbed or problematic.
		= Total Co	/ef	Hydrophytic	
% Bare Ground in Herb Stratum %	Cover of Biotic C	rust		Vegetation Present?	Yes No
Remarks:					
US Army Corps of Engineers					Arid West Version 2.0

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<b>3UI</b>	_

Sampling Point: \_\_\_\_\_\_

	cription: (Describe	to the depth n			dicator (	or confirm	n the absence of in	ndicators.)	
Depth (inches)	Matrix Color (moist)	% (	Redo Color (moist)	x Features	Time!	Loc <sup>2</sup>	Texture	D	
14	10 4/2 3/2		JOIOT (MOIST)	%	Type'	LOC		Remarks	
70	10710 112					-	silf for		
			·		<del>- i</del>	-			
					1				
<del></del>									
	<del></del>					<u></u>			
	2======================================								
1Time: C=C	oncentration, D=Depl	ation DM-Day	luned Metric Ci	C-Covered	Cami	5		. DI -D - 12.1	
	Indicators: (Applica					o Sano Gr		n: PL=Pore Lining, Problematic Hydric	M=Matrix.
_	2.32	in to the Liter	•		[			-	Solis :
Histosol	, ,		Sandy Red					(A9) (LRR C)	
	pipedon (A2)		Stripped Ma		L.	1		(A10) (LRR B)	
	istic (A3)		-	ky Mineral (	- 1	1	Reduced V	` '	
	en Sulfide (A4)			yed Matrix (F	2)			Material (TF2)	
	d Layers (A5) (LRR C	9 .	Depleted M				Other (Expl	ain in Remarks)	
	uck (A9) (LRR D)			Surface (FI	1.5				
	d Below Dark Surface	(A11)		ark Surface	P.O	l	9		
	ark Surface (A12)			ressions (F8	0	1		drophytic vegetation	
	Mucky Mineral (S1)		Vernal Poo	ls (F9)		1	wetland hydro	ology must be prese	ent,
	Gleyed Matrix (S4)						unless disturi	oed or problematic.	
Restrictive	Layer (if present):								
Туре:									
Depth (In	ches):				1		Hydric Soil Pres	ent? Yes	No
Remarks:					-				
YDROLO	GY				1				
Wetland Hy	drology indicators:								
5955	cators (minimum of or	e required; ch	eck all that appl	v)			Secondary	Indicators (2 or mo	re required)
	Water (A1)		Salt Crust	***************************************					
	ater Table (A2)							Marks (B1) (Rivering	-
+			Biotic Crus	` '	!			ent Deposits (B2) (F	•
Saturation				vertebrates			Drift D	eposits (B3) (Riveri	ne)
	larks (B1) (Nonriveri			Sulfide Odo				ge Patterns (B10)	
	nt Deposits (B2) (Non	-	Oxidized F	thizosphere:	along L	iving Roo	ts (C3) Dry-Se	eason Water Table (	(C2)
Orift Dep	posits (B3) (Nonriver	ine)	Presence	of Reduced	ron (C4	1	Crayfis	sh Burrows (C8)	
Surface	Soil Cracks (B6)		Recent Iro	n Reduction	in Titled	Soils (C6	) Satura	tion Visible on Aeria	il Imagery (C9)
Inundati	on Visible on Aerial Ir	nagery (B7)	Thin Muck	Surface (C	h II			w Aquitard (D3)	
Water-S	tained Leaves (B9)		Other (Ex	lain in Rem	arks			leutral Test (D5)	
Field Obser						1			
		-14	/ David Com	nh ma \					
Surface Wat			Depth (in		- 11	+			
Water Table	Present? Ye	s No_	Depth (in	ches):		+			
Saturation P	The second secon	s No_	Depth (in	ches):		Wetla	and Hydrology Pre	sent? Yes	No
(includes car			t			<u> </u>			
vescribe Re	corded Data (stream	gauge, monitor	ing well, aerial	pnotos, prev	ious inst	ections), i	r available:		
Remarks:									

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Project/Site: Hay be rook		City/C	ounty: _	k	7+1745	Sampling Date:	5.19.2
Applicant/Owner:					State: WA		
Applicant/Owner:  Investigator(s): = Zu Se = Zu		Sectio	n, Town		inge:		
Landform (hillslope, terrace, etc.):							ne (%)·
Subregion (LRR):							
Soil Map Unit Name:					NWI classifi		
Are climatic / hydrologic conditions on the site typical for				No	/// // Classin	Caluuri.	
Are Vegetation, Soil, or Hydrology		]]			"Normal Circumstances"	•	/
Are Vegetation, Soil, or Hydrology	-		1				No
SUMMARY OF FINDINGS – Attach site ma			11 (9)	1	eeded, explain any answ ocations, transects		atures, etc.
		- 1					
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No	-	1 1	ampled			
Wetland Hydrology Present? Yes	No	1	within	Wetlar	nd? Yes	No	
VEGETATION – Use scientific names of pl							
Fana Stratum (Diet sines	Absolute		inant In		Dominance Test worl	sheet:	
Tree Stratum (Plot size:)  1	% Cover		es? 5	atus	Number of Dominant S	pecies	44.5
2					That Are OBL, FACW,		(A)
3					Total Number of Domir Species Across All Stra		- (0)
4							(B)
			al Cover		Percent of Dominant S That Are OBL, FACW,		(A/B)
Sapling/Shrub Stratum (Plot size:)			1				(,,,,,,
1				-	Prevalence Index wor		
3			- +		Total % Cover of: OBL species		by:
4					FACW species		
5.			1		FAC species 4		
		= Tot	al Cover		FACU species	x 4 =	
Herb Stratum (Plot size:	60		E	46	UPL species 20	x5=/	60
1. Phken produs 2. Brands teckery	70	-	— <del>'</del> ,	VT	Column Totals: 80	(A) <u>28</u>	(B)
3. Sisymbra altissim		-	— <del>1</del>	T	Prevalence Indev	=B/A = 2.2	5
4.	F116		- 1		Hydrophytic Vegetation		
5					Dominance Test is		
6					Prevalence Index i		
7					Morphological Ada	ptations¹ (Provide s	supporting
8						s or on a separate s	
Mondy Vine Stratum (Dat sine)		= Tota	al Cover		Problematic Hydro	phytic Vegetation' (	(Explain)
Woody Vine Stratum (Plot size:) 1					<sup>1</sup> Indicators of hydric soi	l and watland hude	store emisot
2		-	- T	_	be present, unless distr	irbed or problemati	c.
			al Cover		Hydrophytic Vegetation	/	
% Bare Ground in Herb Stratum % Co	ver of Biotic Cr	ust_		_	Present? Ye	5 No	
Remarks:							

Sampling Point: DP#3

Depth	iption: (Describe to the dep Matrix	Redox I	eatures					
(inches)	Color (moist) %	Color (moist)	% Typ	e <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
14	164 2/2					5.1/m /m		
-				<b>T</b> f				
		-						
		<del>2.0/2111/00000118</del> 3						
				-++				
				71				
-				-+				
	ncentration, D=Depletion, RM			oated	Sand Gr		: PL≃Pore Lining,	
-	idicators: (Applicable to all			1		Indicators for P	roblematic Hydric	: Soils*:
Histosol (	•	Sandy Redox	(S5)	- 111		1 cm Muck (	(A9) ( <b>LRR C</b> )	
	pedon (A2)	Stripped Matri					A10) (LRR B)	
Black Hist		Loamy Mucky				Reduced Ve	rtic (F18)	
	Sulfide (A4)	Loarny Gleyed		1		Red Parent	Material (TF2)	
	Layers (A5) (LRR C)	Depleted Matr				Other (Expla	in in Remarks)	
	k (A9) (LRR D)	Redox Dark S	urface (F5)					
	Below Dark Surface (A11)	Depleted Dark		4				
	k Surface (A12)	Redox Depres				<sup>3</sup> Indicators of hyd	trophytic vegetation	n and
	ucky Mineral (S1)	Vernal Pools (	F9)			wetland hydro	logy must be prese	ent,
	eyed Matrix (S4)					unless disturb	ed or problematic.	
Restrictive La	ayer (if present):							
Type:						1		
ı ype.						1		
• •	nes):	_				Hydric Soil Pres	ent? Yes	No /
• •	nes):					Hydric Soil Prese	ent? Yes	No
Depth (inch Remarks:						Hydric Soil Pres	ent? Yes	No
Depth (inchemarks:	SY					Hydric Soil Press	ent? Yes	No
Depth (inches and inches and inch	SY rology Indicators:	t shock all that analy.						
Depth (inch Remarks: YDROLOG Wetland Hydr Primary Indica	SY rology Indicators: stors (minimum of one require					Secondary	Indicators (2 or mo	re required)
Depth (inches Permarks:  YDROLOG  Wetland Hydrorimary Indica  Surface W	SY rology Indicators: stors (minimum of one required	Salt Crust (B				Secondary Water	Indicators (2 or mo Marks (B1) (Riverii	re required)
Depth (inches Primary Indica Surface Water High Water Primary Indica Line Primary Indi	Tology Indicators:  Itors (minimum of one required Vater (A1)  Par Table (A2)	Salt Crust (B Biotic Crust (	B12)			Secondary Water	Indicators (2 or mo	re required)
Primary Indica Surface W High Wate Saturation	rology Indicators:  tors (minimum of one required  vater (A1) er Table (A2)	Salt Crust (B Biotic Crust ( Aquatic Inver	B12) tebrates (B13			Secondary Water Management	Indicators (2 or mo Marks (B1) (Riverii	re required) ne) Riverine)
Primary Indica Surface W High Wate Saturation Water Mai	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) o (A3) rks (B1) (Nonriverine)	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su	B12) tebrates (B13 lfide Odor (C	0		Secondary  Water I  Sedime  Orift De	Indicators (2 or mo Marks (B1) (Riveria ent Deposits (B2) (F	re required) ne) Riverine)
Primary Indica Surface W High Wate Saturation Water Mal Sediment	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) a (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine)	Salt Crust (B Biotic Crust ( Aquatic Inver	B12) tebrates (B13 lfide Odor (C	0	ring Roof	Secondary   Water   Sedime	Indicators (2 or mo Marks (B1) (Riveria ent Deposits (B2) (F eposits (B3) (Riveria	re required) ne) Riverine) ne)
Primary Indica Surface W High Wate Saturation Water Mal Sediment	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) o (A3) rks (B1) (Nonriverine)	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su	B12) tebrates (B13 lfide Odor (C zospheres alc	ng Liv	ring Roof	Secondary    Water N Sedime Drift De Drainag ts (C3) Dry-Se	Indicators (2 or mo Marks (B1) (Riverin ent Deposits (B2) (F eposits (B3) (Riveri ge Patterns (B10)	re required) ne) Riverine) ne)
Depth (inche Remarks:  YDROLOG  Vetland Hydr  Primary Indica  Surface W  High Wate  Saturation  Water Mai  Sediment  Drift Depo	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) a (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine)	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhi	B12) tebrates (B13 lfide Odor (C zospheres ak Reduced Iron	1) ing Liv (C4)		Secondary    Water N  Sedime  Drift De  Drainag  ts (C3) Dry-See  Crayfisl	Indicators (2 or mo Marks (B1) (Riveri ent Deposits (B2) (Riveri ge Patterns (B10) ason Water Table ( th Burrows (C8)	re required) ne) Riverine) ne)
Primary Indica Surface Wetland Hydre Primary Indica Surface W High Water Saturation Water Mai Sediment Drift Depo	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) er (A3) erks (B1) (Nonriverine) Deposits (B2) (Nonriverine) esits (B3) (Nonriverine)	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of I Recent Iron F	B12) tebrates (B13 liide Odor (C' zospheres ak Reduced Iron Reduction in 1	1) ing Liv (C4)		Secondary  Water I  Sedime  Drift De  Drainag  ts (C3)  Crayfisl  Saturat	Indicators (2 or mo Marks (B1) (Riveri ent Deposits (B2) (Riveri posits (B3) (Riveri ge Patterns (B10) ason Water Table (	re required) ne) Riverine) ne)
Primary Indica Surface W High Water Saturation Water Mai Sediment Drift Depo Surface S Inundation	rology Indicators:  ators (minimum of one required vater (A1) er Table (A2) a (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) oil Cracks (B6)	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of I Recent Iron F	B12) tebrates (B13 tide Odor (C zospheres alc Reduced ron Reduction in 1 urface (C7)	ng Liv (C4) illed S		Secondary    Water    Sedime  Drift De  Drainag  ts (C3) Dry-Sea  Crayfisl  Saturat  Shallow	Indicators (2 or mo Marks (B1) (Riveria Int Deposits (B2) (Riveria Ige Patterns (B10) Ige	re required) ne) Riverine) ne)
Primary Indica Surface W High Wate Saturation Water Mai Sediment Drift Depo Surface S Inundatior Water-Sta	rology Indicators:  tors (minimum of one required later (A1) er Table (A2) er (A3) erks (B1) (Nonriverine) Deposits (B2) (Nonriverine) esits (B3) (Nonriverine) esits (B3) (Nonriverine) esits (B6) (Nonriverine) esits (B6) (Nonriverine) esits (B8) (Nonriverine) esits (B8)	Salt Crust (B' Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhi: Presence of I Recent Iron F	B12) tebrates (B13 tide Odor (C zospheres alc Reduced ron Reduction in 1 urface (C7)	ng Liv (C4) illed S		Secondary    Water   Sedime Drift De Drainag ts (C3) Dry-Sea Crayfisl Saturat Shallow	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10) ason Water Table (In Burrows (C8) ion Visible on Aeria	re required) ne) Riverine) ne)
Primary Indica Surface Wetland Hydre Frimary Indica Surface Water Mater Saturation Water Mater Sediment Drift Depo Surface S Inundation Water-Sta	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) er (A3) erks (B1) (Nonriverine) Deposits (B2) (Nonriverine) esits (B3) (Nonriverine) foil Cracks (B6) er Visible on Aerial Imagery (Bations:	Salt Crust (B' Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of I Recent Iron F Thin Muck St Other (Explain	B12) tebrates (B13 ffide Odor (C zospheres ak Reduced fron Reduction in 1 urface (C7) n in Remarks	ng Liv (C4) illed S		Secondary    Water   Sedime Drift De Drainag ts (C3) Dry-Sea Crayfisl Saturat Shallow	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10) ason Water Table (In Burrows (C8) ion Visible on Aeria	re required) ne) Riverine) ne)
Primary Indica Surface Water Mai Surface Saturation Water Mai Sediment Drift Depo Surface S Inundatior Water-Sta Field Observa	rology Indicators:  ators (minimum of one required vater (A1) er Table (A2) a (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) oil Cracks (B6) a Visible on Aerial Imagery (B' tined Leaves (B9) ations:	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhit Presence of I Recent Iron F Thin Muck St Other (Explai	B12) tebrates (B13 tride Odor (C zospheres alc Reduced Iron Reduction in 1 urface (C7) in in Remarks	ng Liv (C4) illed S		Secondary    Water   Sedime Drift De Drainag ts (C3) Dry-Sea Crayfisl Saturat Shallow	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10) ason Water Table (In Burrows (C8) ion Visible on Aeria	re required) ne) Riverine) ne)
Primary Indica Surface W High Water Mai Sediment Drift Depo Surface S Inundation Water-Sta Field Observa Surface Water Water Table P	rology Indicators:  Itors (minimum of one required Vater (A1)  Per Table (A2)  In (A3)  In (A3)  In (B1) (Nonriverine)  Deposits (B2) (Nonriverine)  In (B3) (No	Salt Crust (B' Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhi: Presence of I Recent Iron F Thin Muck Su Other (Explain	B12) tebrates (B13 lifide Odor (C' cospheres alc Reduced ron Reduction in 1 urface (C7) n in Remarks es):	ng Liv (C4) illed S	Goils (C6	Secondary  Water M Sedime Drift De Drainag ts (C3) Dry-Sea Crayfisl Saturat Shallow FAC-Ne	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10)) as on Water Table (In Burrows (C8)) and Visible on Aerical Aquitard (D3) acutral Test (D5)	re required)  Riverine)  ne)  C2)  Il Imagery (C9
Primary Indica Surface W High Water Mai Sediment Drift Depo Surface S Inundation Water-Sta Field Observa Surface Water Water Table P Saturation Pre-	rology Indicators:  stors (minimum of one required vater (A1) er Table (A2) n (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) soil Cracks (B6) n Visible on Aerial Imagery (B' stined Leaves (B9) atlons: Present? Yes	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhit Presence of I Recent Iron F Thin Muck St Other (Explai	B12) tebrates (B13 lifide Odor (C' cospheres alc Reduced ron Reduction in 1 urface (C7) n in Remarks es):	ng Liv (C4) illed S	Goils (C6	Secondary    Water   Sedime Drift De Drainag ts (C3) Dry-Sea Crayfisl Saturat Shallow	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10)) as on Water Table (In Burrows (C8)) and Visible on Aerical Aquitard (D3) acutral Test (D5)	re required) ne) Riverine) ne)
Depth (inch Remarks:  YDROLOG Wetland Hydr Primary Indica Surface W High Water Saturation Water Mai Sediment Drift Depo Surface Si Inundation Water-Sta Field Observa Surface Water Water Table Posaturation Precincludes capill	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) h (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) oil Cracks (B6) h Visible on Aerial Imagery (B' tined Leaves (B9) ations: Present? Yes sent? Yes lary fringe)	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhit Presence of I Recent Iron F Thin Muck St Other (Explai	B12) tebrates (B13 tride Odor (C zospheres ak Reduced Iron Reduction in 1 urface (C7) n in Remarks es):	ing Liv (C4) Tilled S	Wetta	Secondary  Water M Sedime Drift De Drainag ts (C3) Dry-See Crayfisl Saturat FAC-Ne	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10)) as on Water Table (In Burrows (C8)) and Visible on Aerical Aquitard (D3) acutral Test (D5)	re required) Riverine) ne) C2) Al Imagery (CS
Depth (inch Remarks:  YDROLOG Wetland Hydr Primary Indica Surface W High Water Saturation Water Mai Sediment Drift Depo Surface Si Inundation Water-Sta Field Observa Surface Water Water Table Posaturation Precincludes capill	rology Indicators:  stors (minimum of one required vater (A1) er Table (A2) n (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) soil Cracks (B6) n Visible on Aerial Imagery (B' stined Leaves (B9) atlons: Present? Yes	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhit Presence of I Recent Iron F Thin Muck St Other (Explai	B12) tebrates (B13 tride Odor (C zospheres ak Reduced Iron Reduction in 1 urface (C7) n in Remarks es):	ing Liv (C4) Tilled S	Wetta	Secondary  Water M Sedime Drift De Drainag ts (C3) Dry-See Crayfisl Saturat FAC-Ne	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10)) as on Water Table (In Burrows (C8)) and Visible on Aerical Aquitard (D3) acutral Test (D5)	re required)  Riverine)  ne)  C2)  Il Imagery (C9
Primary Indica Surface W High Water Saturation Water Mai Sediment Drift Depo Surface S Inundation Water-Sta Field Observa Surface Water Water Table Pe Saturation Preincludes capill Describe Reco	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) h (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) oil Cracks (B6) h Visible on Aerial Imagery (B' tined Leaves (B9) ations: Present? Yes sent? Yes lary fringe)	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhit Presence of I Recent Iron F Thin Muck St Other (Explai	B12) tebrates (B13 tride Odor (C zospheres ak Reduced Iron Reduction in 1 urface (C7) n in Remarks es):	ing Liv (C4) Tilled S	Wetta	Secondary  Water M Sedime Drift De Drainag ts (C3) Dry-See Crayfisl Saturat FAC-Ne	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10)) as on Water Table (In Burrows (C8)) and Visible on Aerical Aquitard (D3) acutral Test (D5)	re required)  Riverine)  ne)  C2)  Il Imagery (C9
Depth (inch Remarks:  YDROLOG Wetland Hydr Primary Indica Surface W High Water Saturation Water Mai Sediment Drift Depo Surface Si Inundation Water-Sta Field Observa Surface Water Water Table Posaturation Precincludes capill	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) h (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) oil Cracks (B6) h Visible on Aerial Imagery (B' tined Leaves (B9) ations: Present? Yes sent? Yes lary fringe)	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhit Presence of I Recent Iron F Thin Muck St Other (Explai	B12) tebrates (B13 tride Odor (C zospheres ak Reduced Iron Reduction in 1 urface (C7) n in Remarks es):	ing Liv (C4) Tilled S	Wetta	Secondary  Water M Sedime Drift De Drainag ts (C3) Dry-See Crayfisl Saturat FAC-Ne	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10)) as on Water Table (In Burrows (C8)) and Visible on Aerical Aquitard (D3) acutral Test (D5)	re required)  Riverine)  ne)  C2)  Il Imagery (C9
Primary Indica Surface W High Water Saturation Water Mai Sediment Drift Depo Surface S Inundation Water-Sta Field Observa Surface Water Nater Table Pe Saturation Preincludes capill Describe Reco	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) h (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) oil Cracks (B6) h Visible on Aerial Imagery (B' tined Leaves (B9) ations: Present? Yes sent? Yes lary fringe)	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhit Presence of I Recent Iron F Thin Muck St Other (Explai	B12) tebrates (B13 tride Odor (C zospheres ak Reduced Iron Reduction in 1 urface (C7) n in Remarks es):	ing Liv (C4) Tilled S	Wetta	Secondary  Water M Sedime Drift De Drainag ts (C3) Dry-See Crayfisl Saturat FAC-Ne	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10)) as on Water Table (In Burrows (C8)) and Visible on Aerical Aquitard (D3) acutral Test (D5)	re required)  Riverine)  ne)  C2)  Il Imagery (C9
Primary Indica Surface W High Water Saturation Water Mai Sediment Drift Depo Surface S Inundation Water-Sta Field Observa Surface Water Nater Table Posaturation Pre- includes capill Describe Reco	rology Indicators: stors (minimum of one required vater (A1) er Table (A2) h (A3) rks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) oil Cracks (B6) h Visible on Aerial Imagery (B' tined Leaves (B9) ations: Present? Yes sent? Yes lary fringe)	Salt Crust (B Biotic Crust (I Aquatic Inver Hydrogen Su Oxidized Rhit Presence of I Recent Iron F Thin Muck St Other (Explai	B12) tebrates (B13 tride Odor (C zospheres ak Reduced Iron Reduction in 1 urface (C7) n in Remarks es):	ing Liv (C4) Tilled S	Wetta	Secondary  Water M Sedime Drift De Drainag ts (C3) Dry-See Crayfisl Saturat FAC-Ne	Indicators (2 or mo Marks (B1) (Rivering the Deposits (B2) (Rivering Patterns (B10)) as on Water Table (In Burrows (C8)) and Visible on Aerical Aquitard (D3) acutral Test (D5)	re required) Riverine) ne) C2) Al Imagery (CS

just west of Wilson Crack

Project/Site: Haybrauk  Applicant/Owner: Investigator(s): Id Suns		City/C	ounty:	1	的形成。		Sampling Date: _	5-11-
Applicant/Owner:		-			State:	WA	Sampling Point:	DP#4
Investigator(s): 21 Sent		Section	n. Town	ship, Ra	inde:			
Landform (hillslope, terrace, etc.):								ne (%):
Subregion (LRR):			1 11					
Soil Map Unit Name:							cation:	
Are climatic / hydrologic conditions on the site typical:		2 V			_			
	-			Т -	•	•		<b>-</b>
Are Vegetation, Soil, or Hydrology	-						present? Yes	No
Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS - Attach site r				'		-	ers in Remarks.)	-4
			ping	JOHIL I	ocations, u	arisecu	s, important rea	atures, etc.
Hydrophytic Vegetation Present? Yes	No No		is the	ampled	i Area			
Hydric Soil Present? Yes  Wetland Hydrology Present? Yes	_ No	-	within	Wetla	nd?	Yes	No	
Remarks: about row								1
VEGETATION – Use scientific names of				ļ				
Tree Stratum (Plot size:)	Absolute % Cover	Spec	inant in		Dominance			
1. Papeles balson. For	40			FAL	Number of D That Are OB			(A)
2.								
3					Total Number			(B)
4					Percent of D	aminant C	!	
		= Tot	al Cover				or FAC:	(A/B)
Sapling/Shrub Stratum (Plot size:  1. Symphonicapes 1/6 45			P	oc U	Prevalence			
2			1					bv:
3.				_	1		x1=	
4.					1		x2=	
5							x3=_/	
		= Tot	al Cover		FACU specie	es 40	x4= 2	40
Herb Stratum (Plot size:)					UPL species		x5=	
1					Column Tota	ts: 10	(A) 3	60 (B)
2				-	Decuele	ann Iniday	3. =B/A=	, Ç
3				-			on Indicators:	
4.       5.			<del></del>		Dominar	_		
6			T 1		Prevaler			
7					Morphol	ogical Ada	ntations1 (Provide s	supporting
8.					data	in Remark	s or on a separate (	sheet)
			al Cover		Problem	atic Hydro	phytic Vegetation <sup>1</sup>	(Explain)
Woody Vine Stratum (Plot size:)			i i		1			
1			i i	-	be present, u	i hydric soi mless disti	il and wetland hydroubled or problemati	ology must ic.
2		= Tot	al Cover		Hydrophytic Vegetation Present?		s No	/
Remarks:					1			
			1					

COL	
301	

Sampling Point: DI#4

Depth	Matrix	11000	ox Features			
(inches)		Color (moist)		Loc <sup>2</sup>	Texture	Remarks
14	104313				54H /m	
				+		
			-	+		
	ncentration, D=Depletion,			ited Sand G		PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applicable to	o all LRRs, unless othe	rwise noted.)		Indicators for Pr	oblematic Hydric Soils³:
Histosol	(A1)	Sandy Red	ox (S5)		1 cm Muck (A	(49) (LRR C)
Histic Ep	ipedon (A2)	Stripped Ma	atrix (S6)		2 cm Muck (A	(10) (LRR B)
Black His	stic (A3)	Loamy Muc	ky Mineral (F1)		Reduced Ver	tic (F18)
Hydroge	n Sulfide (A4)	Loarny Gley	yed Matrix (F2)	ill		Material (TF2)
Stratified	Layers (A5) (LRR C)	Depleted M	latrix (F3)	11		n in Remarks)
1 cm Mu	ck (A9) (LRR D)	Redox Darl	k Surface (F5)			
Depleted	Below Dark Surface (A11	) Depleted D	ark Surface (F7)			
Thick Da	rk Surface (A12)	Redox Dep	ressions (F8)		<sup>3</sup> Indicators of hyd	rophytic vegetation and
Sandy M	ucky Mineral (S1)	Vernal Pool	ls (F9)		wetland hydrole	ogy must be present,
Sandy G	leyed Matrix (S4)				-	d or problematic.
Restrictive L	ayer (if present):				T	
				E11		
Type:						
					Uhrdein Call Dance	w/2 Van Na /
	hes):			· sate	Hydric Soil Prese	nt? Yes No
Depth (inc				Table Towns	Hydric Soil Prese	nt? Yes No
Depth (inc Remarks:	hes):			The state of the s	Hydric Soil Prese	nt? Yes No
Depth (inc Remarks: YDROLOG	hes):			the Contract	Hydric Soil Prese	nt? Yes No
Depth (inc Remarks: YDROLOG Wetland Hyd	hes):  GY  Irology Indicators:		v)			
Depth (Inc. Remarks:  YDROLOG Wetland Hyd	GY Irology Indicators: ators (minimum of one req	uired; check all that appl			Secondary In	ndicators (2 or more required)
Depth (inc Remarks: YDROLOG Wetland Hyd Primary India Surface	GY  Irology Indicators:  ators (minimum of one req  Nater (A1)	uired; check all that appl	(B11)		Secondary Ir	ndicators (2 or more required) arks (B1) ( <b>Riverine</b> )
Depth (inc Remarks: YDROLOG Wettand Hyd Crimary India Surface V	hes):  Irology Indicators:  ators (minimum of one require (A1) ter Table (A2)	uired; check all that appl Salt Crust Biotic Crus	(B11) st (B12)		Secondary Ir  Water M Sedimen	ndicators (2 or more required) arks (B1) (Riverine) nt Deposits (B2) (Riverine)
Primary Indic Surface V High War Saturatio	GY irology Indicators: ators (minimum of one req Nater (A1) ter Table (A2) n (A3)	uired; check all that appl Salt Crust Biotic Crus Aquatic In	(B11) st (B12) vertebrates (B13)	1   1	Secondary II  Water M Sedimer  Drift De	ndicators (2 or more required) larks (B1) (Riverine) nt Deposits (B2) (Riverine) losits (B3) (Riverine)
Primary Indic  Surface V  High War  Saturatio  Water Mi	hes):  irology Indicators: ators (minimum of one req Water (A1) ter Table (A2) n (A3) arks (B1) (Nonriverine)	uired; check all that appl Salt Crust Biotic Crust Aquatic In Hydrogen	(B11) st (B12) vertebrates (B13) Sulfide Odar (C1		Secondary Ir  Water M Sedimer  Drift Del	adicators (2 or more required) arks (B1) (Riverine) at Deposits (B2) (Riverine) assits (B3) (Riverine) a Patterns (B10)
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#### WETLAND DETERMINATION DATA FORM - Arid West Region Project/Site: H - | Crack City/County: K-17-7-5 Sampling Date: D1#5 Applicant/Owner: State: WA Sampling Point: Investigator(s): Section, Township, Range: State: WA Sampling Point: Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%): Lat: Long: Datum: Subregion (LRR): NWI classification: \_\_\_\_ Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? Yes No \_\_\_\_\_ (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes \_\_\_\_\_ No\_\_\_\_ Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes \_\_\_ No \_\_ Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Yes \_\_\_\_\_ No \_\_\_ Remarks: **VEGETATION – Use scientific names of plants.** Absolute Dominant Indicator **Dominance Test worksheet:** Tree Stratum (Plot size: % Cover Species? Status Number of Dominant Species Z\_\_\_(A) That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species 6 in (A/B) = Total Cover That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: 1. Craterque 577 40 2. Resa procupus 60 Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species \_\_\_\_\_ x 1 = \_\_\_\_ FACW species \_\_\_\_\_ x 2 = \_\_\_\_ FAC species \_\_\_\_\_ x 3 = \_\_\_\_ = Total Cover FACU species \_\_\_\_\_ x 4 = \_\_\_\_ Herb Stratum (Plot size: \_\_\_\_\_) 1. She may be time? UPL species \_\_\_\_\_ x 5 = \_\_\_\_ Column Totals: \_\_\_\_\_ (A) \_\_\_\_ (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: \_\_\_ Dominance Test is >50% Prevalence Index is ≤3.01 \_\_\_ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) \_\_\_\_\_ = Total Cover Woody Vine Stratum (Plot size: \_\_\_\_) 1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. = Total Cover Hydrophytic Vegetation % Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_ Present? Remarks:

Arid West - Version 2.0

**US Army Corps of Engineers** 

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Sampling Point:

Depth	Matrix		Redo	x Features						
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc2	Texture		Remarks	3
16	104N3/2						5/1/- 1	my		
				<del></del> 3						
					1					
								i		
ype: C=0	Concentration, D=Deple	etion, RM=F	Reduced Matrix, CS	S=Covered	or Coate	Sand Gra	ains. <sup>2</sup> Lo	cation: PL	=Pore Lining,	M=Matrix.
ydric Sol	indicators: (Applica	ble to all L	RRs, unless othe	rwise note	4-)				ematic Hydri	
_ Histoso	l (A1)		Sandy Red	ox (S5)			1 cm i	Muck (A9)	(LRR C)	
	pipedon (A2)		Stripped Ma					Muck (A10		
_	listic (A3)		Loamy Muc	-				ced Vertic		
	en Sulfide (A4)		Loamy Gley	-	12)			arent Mate		
	ed Layers (A5) (LRR C luck (A9) (LRR D)	,	Depleted M Redox Dark		6)		Uner	(exbiain in	Remarks)	
_	ed Below Dark Surface	(A11)	Depleted D		4					
	ark Surface (A12)	(*****)	Redox Dep		E	1	3Indicators	of hydroni	hytic vegetatio	on and
	Mucky Mineral (S1)		Vernal Pool	-					must be pres	
	Gleyed Matrix (S4)		_				unless o	listurbed o	r problematic.	
estrictive	Layer (if present):									
Times					1 "1	1				
Type:					1 8		i			1.
Depth (i	nches):						Hydric Sol	Present?	Yes	No
Depth (li emarks:							Hydric Sol	l Present?	Yes	No
Depth (in emarks:	DGY						Hydric Sol	Present?	Yes	No
Depth (in emarks:	OGY ydrology indicators:		check all that appl							
Depth (in emarks:  /DROLO fetland Hyrimary Ind	OGY vdrology indicators: icators (minimum of or						Seco	ndary Indic	ators (2 or me	ore required)
Depth (in emarks:  *DROLC*  *etland Hyrimary Ind	OGY vdrology Indicators: icators (minimum of or a Water (A1)		Salt Crust	(B11)			Seco	ndary Indic Vater Mark	ators (2 or me	ore required)
Depth (in emarks:  /DROLC fetland Hyrimary Ind Surface High W	OGY  /drology Indicators: icators (minimum of or a Water (A1) /dater Table (A2)		Salt Crust Biotic Crus	(B11) st (B12)	(B13)		Seco	ndary Indic Vater Mark Sediment D	ators (2 or mus (B1) (River)	ore required) ine) (Riverine)
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