

CRITICAL AREAS REPORT

October 9, 2020



Herb Johnson Delineation Chehalis, Washington

Prepared for

Herb Johnson 870 SW 21st Street Chehalis, Washington 98532 (360) 748-1175

Prepared by Ecological Land Services

1157 3rd Avenue, Suite 220A • Longview, WA 98632 (360) 578-1371 • Project Number 3286.01

SIGNATURE PAGE

The information and data in this report was compiled and prepared under the supervision and direction of the undersigned.

n Wills

Kate'Lyn (KT)/Wills Biologist/Environmental Scientist IV

TABLE OF CONTENTS

INTRODUCTION	1
SITE DESCRIPTION	1
METHODOLOGY	1
VEGETATION	2
SOILS	2
HYDROLOGY	3
WETLAND INVENTORIES	3
CRITICAL AREAS SUMMARY	3
LIMITATIONS	4
REFERENCES	5

Figures:

Figure 1	Vicinity Map
Figure 2	Site Map
Figure 3	Soil Survey Map
Figure 4	National Wetlands Inventory Map
Figure 6	Wetland Rating Form – 150' Offset
Figure 7	Wetland Rating Form – 1 KM Offset
Figure 8	303(d) Listed Waters/TMDLs
Photoplate	1

Appendix A:

Wetland Determination Data Forms

Appendix B:

Wetland Rating Forms

INTRODUCTION

Ecological Land Services, Inc. (ELS) has completed this critical areas report on behalf of the applicant, Herb Johnson. The site consists of Lewis County Parcel Number 005604183244, located at 870 SW 21st Street in Chehalis, Washington, within a portion of Section 4, Township 13 North, and Range 2 West of the Willamette Meridian (Figure 1). This report summarizes the findings of critical areas onsite in accordance with the *Chehalis Municipal Code (CMC), Chapter 17.21Critical Areas* (2020).

SITE DESCRIPTION

The approximately 5.1-acre site is zoned as residential and is currently vacant except for a small gravel parking area in the southwestern corner of the property (Figure 2). The rest of the site has been mowed regularly for the past 10 years. The site is generally level with a low point in the northern corner. Access to the site is located just south of 870 SW 21st Street. The triangular shaped site is fenced on all three sides and surrounded by high intensity single-family homes with commercial uses just to the north.

METHODOLOGY

The wetland delineation followed the Routine Determination Method according to the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (U.S. Army Corps of Engineers 2010).

The Routine Determination Method examines three parameters—vegetation, soils, and hydrology—to determine if wetlands exist in a given area. Hydrology is critical in determining what is wetland, but is often difficult to assess because hydrologic conditions can change periodically (hourly, daily, or seasonally). Consequently, it is necessary to determine if hydrophytic vegetation and hydric soils are present, which would indicate that water is present for long enough duration to support a wetland plant community. By definition, wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands are regulated as "Waters of the United States" by the U.S. Army Corps of Engineers (USACE), as "Waters of the State" by the Washington Department of Ecology (Ecology), and locally by the City of Chehalis (City).

ELS biologists conducted a reconnaissance of the property on August 27, 2020 to determine the presence or absence of any wetlands, streams, and other critical areas on the site and map their approximate locations. Prior to conducting the site visit, an ELS biologist reviewed current and historic aerial photographs dating back to 1990 and reviewed the Lewis County GIS database information regarding soils, topography, wetlands, and habitat conservation areas. One depressional wetland (Wetland A) was located within the northern corner of the site and (Figure 2). Vegetation, soil, and hydrology information was collected from eight test plots to determine the location and extent of the wetland onsite. Data sheets can be found in Appendix A. Test plot locations and the wetland boundary were flagged with consecutively numbered pink pin flags and GPS coordinates taken with a handheld GPS unit with sub meter accuracy. Additionally, the

location, approximate diameter at breast height (dbh), and approximate canopy area of three adjacent Oregon white oak (*Quercus garryana*) trees were recorded and mapped.

VEGETATION

Wetlands

Vegetation found in the wetland test plot consists primarily of **herbs:** reed canarygrass (*Phalaris arundinacea*, FACW), and creeping buttercup (*Ranunculus repens*, FACW).

Uplands

Vegetation found in the upland test plots is dominated by **herbs:** Fuller's teasel (*Dipsacus fullonum*, FAC), Queen Anne's lace (*Daucus carota*, FACU), hairy cat's ear (*Hypochaeris radicata*, FACU), red clover (*Trifolium pratense*, FACU) and reed canarygrass.

The indicator status, following the scientific names, indicates the likelihood of the species to be found in wetlands. Listed from most likely to least likely to be found in wetlands, the indicator status categories are:

- **OBL** (obligate wetland) occur almost always under natural conditions in wetlands.
- **FACW** (facultative wetland) usually occur in wetlands, but occasionally found in non-wetlands.
- **FAC** (facultative) equally likely to occur in wetlands or non-wetlands.
- FACU (facultative upland) usually occur in non-wetlands, but occasionally found in wetlands.
- **UPL** (obligate upland) occur almost always under natural conditions in non-wetlands.
- **NI** (no indicator) insufficient data to assign to an indicator category.

SOILS

Soils onsite are mapped as Lacamas silt loam, 0 to 3 percent slopes (118), as referenced on the Natural Resources Conservation Service (NRCS) Web Soil Survey website (NRCS 2020) (Figure 3). Lacamas silt loam is characterized as a poorly drained soil with an approximate depth to water table of about 12 to 18 inches below ground surface (BGS). This soil is generally found on floodplains and terraces. Soil within the wetland test plots consisted of silty clay loam with a depleted matrix and at least 5 percent redoximorphic concentrations found in pore linings meeting both or either of the hydric soil indicators; Depleted Matrix (F3) or Redox Dark Surface (F6). Specific soil information is recorded on the attached wetland determination data forms (Appendix A).

Lacamas silt loam is listed as a hydric soil (NRCS 2020). Mapped hydric soils do not necessarily mean that the area is a wetland—hydrology, wetland vegetation, and hydric soils must all be present to classify an area as a wetland. Conversely, wetlands may be found in areas where the soils are not mapped as hydric. ELS does not generally agree with NRCS mapped hydric soils, as wetlands were found in mapped non-hydric soil areas, and conversely, uplands were found in mapped hydric soil areas.

HYDROLOGY

Wetland A is located in a shallow depression within the northern corner of the site. Hydrology sources include a shallow groundwater table, runoff, and precipitation. The wetland has two hydroperiods; seasonally flooded and saturated only. It provides flood storage and delay, and groundwater recharge functions. No surface water or saturation was present in the wetland during the site visit; however, the primary hydrology indicator Oxidized Rhizospheres along Living Roots (C3) were present within the wetland test plots. The wetland test plots also met the following secondary indicators; Water Stained Leaves (B9), Geomorphic Position (D2), and a positive FAC-Neutral Test (D5). The upland test plots did not meet any hydrology indicators. Test plot data sheets can be found in Appendix A.

WETLAND INVENTORIES

The National Wetlands Inventory Map (NWI) indicated the presence of a Palustrine, emergent, persistent, scrub-shrub, and seasonally flooded wetland covering the site (Figure 4). ELS' findings differed from the NWI as only a 0.49-acre wetland was delineated in the northern corner of the site and the remainder of the site consisted of uplands. Maps from the NWI should be used with discretion as they are typically used to gather wetland information about a region and, because of the large scale necessary for regional mapping, are limited in accuracy for localized analyses.

CRITICAL AREAS SUMMARY

Wetland

One emergent and depressional wetland (Wetland A) was delineated in a shallow depression with no outlet in the northern corner of the site. The wetland boundary was bordered by an obvious change in elevation and vegetation. The wetland area is dominated by reed canarygrass and creeping buttercup. Hydrology sources include a shallow groundwater table, runoff, and precipitation. The wetland has two hydroperiods; seasonally flooded and saturated only. The wetland provides flood storage and delay, and groundwater recharge functions. According to the Washington State Wetland Rating System for Western Washington: 2014 Update (Rating System); Wetland A is a Category IV wetland scoring a total of 15 points, with 6 points for water quality functions, 5 points for hydrologic functions, and 4 points for habitat functions (Hruby 2014). The wetland rating form can be found in Appendix B. Standard wetland buffers are based on wetland category in conjunction with the habitat function score from the Rating Form. Wetland A is a Category IV wetland with a habitat score of 4 making the standard buffer width 50 feet according to CMC 17.23.030(C) Buffers. Table 2 below summarizes the wetland.

Wetland Area	Area Onsite (acres)	Cowardin ¹ /HGM ²	Category ³	Standard Buffer Width ⁴ (feet)
Wetland A	0.49	Emergent/Depressional	Category IV	50
¹ Cowardin et al. 1979 ² NRCS 2008 ³ Hruby 2014 ⁴ CMC 17.23.030(C)				
Herb Johnson Delineation	ı		E	cological Land Services, In
Critical Areas Report		3		October 202

Table 2. Summary of Wetland (Onsite
---------------------------------------	--------

Oregon White Oak

In urban or urbanizing areas west of the Cascades, WDFW defines priority oak habitat as single oaks, or stands of pure oak, or oak/conifer associations, 1 acre or greater in size. WDFW may also consider individual Oregon white oak trees a priority habitat when found to be particularly valuable to wildlife (i.e., contains many cavities, has a large diameter at breast height (DBH), is used by priority species, or has a large canopy) (Larsen and Morgan 1998). The project site is within an urban growth boundary. WDFW recommendation is that in urban and urbanizing areas, single trees should be maintained if they are deemed important to species highly associated with Oregon white oak. Oaks and their associated floras comprise distinct woodland ecosystems with various plant communities providing valuable habitat that contributes to wildlife diversity; Oak woodlands provide a mix of feeding, resting, and breeding habitat for many wildlife species (Larsen and Morgan 1998).

Three Oregon white oak trees measuring approximately 24 to 36 inches DBH were mapped just offsite. Two are located south of the southcentral site boundary and one is located just northeast of Wetland A (Figure 2). If removal of oak trees cannot be avoided, a mitigation plan shall be written to address and mitigate all impacts.

LIMITATIONS

ELS bases the above listed determinations and conclusions on standard scientific methodology and best professional judgment. In our opinion, the conclusions should agree with local, state, and federal regulatory agencies. However, this should be considered a preliminary jurisdictional determination and should be used at your own risk until it has been reviewed and approved in writing by the appropriate regulatory agencies.

REFERENCES

- Cowardin, L.M., C. Carter, F.C. Golet, and E.T. LaRoe (Cowardin et. al.). 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-78/31. U.S. Department of the Interior, Fish and Wildlife Service, Office of Biological Services, Washington D.C.
- City of Chehalis. 2020. *Chehalis Municipal Code*. Chapter 17.21 Critical Areas. Chehalis, Washington. September 14, 2020.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1. U.S. Army Corps of Engineer Waterways Experiment Station, Vicksburg, Mississippi.
- Hruby, T (Hruby). 2014. Washington State Wetland Rating System for Western Washington 2014 update. Washington State Department of Ecology Publication #14-06-029. Olympia, Washington.
- Larsen, Eric M. and Morgan, John T (Larson and Morgan). 1998. *Management Recommendations for Washington's Priority Habitats Oregon White Oak Woodlands.* Washington Department of Fish and Wildlife (WDFW). January 1998.
- Natural Resource Conservation Service (NRCS). 2008. *Hydrogeomorphic Wetland Classification System: An Overview and Modification to Better Meet the Needs of the Natural Resources Conservation Service*. United States Department of Agriculture Technical Note, #190-8-76.
- Natural Resources Conservation Service (NRCS). December 2015. Washington State HydricSoilsList.AccessedonlineOctober2020.http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.
- U.S. Army Corps of Engineers (Corps). 2010. Final Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-13. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center.
- U.S. Fish and Wildlife Service (USFWS). 1988. *National Wetlands Inventory*. Accessed online October 2020. http://wetlandsfws.er.usgs.gov/wtlnds/launch.html.

FIGURES & PHOTOPLATES









NOTE(S):

1. Map provided online by US Fish & Wildlife Service at web address: https://www.fws.gov/wetlands/data/Mapper.html













oqica and Services

1157 3rd Ave., Suite 220A Longview, WA 98632 Phone: (360) 578-1371 Fax: (360) 414-9305

DATE: 10/2/20 DWN: KT PRJ. MGR: KT PROJ.#: 3286.01

Photo was taken from the southwestern property boundary facing north.

Photo 2

Photo was taken from Test Plot 2 facing north east across the wetland area.

Photo 3

Photo was taken from the same location as Photo 1 facing south.

> Photoplate 1 Site Photos HJ Delineation Herb Johnson Chehalis, Washington

APPENDIX A: WETLAND DETERMINATION DATA FORMS

Project/Site: HJ Delineation		City/Co	unty:Chehal	is/Lewis Sampl	ling Date: 8/27/2020	
Applicant/Owner: Herb Johnson			State: W	A S	Sampling Point: TP-1	
Investigator(s): Wills, KT		Sectio	n, Township	, Range: 4, 13N, 2W		
Landform (hillslope, terrace, etc.): Terrace	L	ocal relief: Co	onvex		Slope (%):<	3%
Subregion (LRR): <u>A2</u>	Lat: 46.6448	325	Long: <u>-122.</u>	937547	Datum: NAD83	
Soil Map Unit Name: Lacamas silt loam, 0 to 3 percent	slopes		N	WI classification: PEM1/S	3SC	
Are climatic / hydrologic conditions on the site typical for	or this time of y	/ear?Yes⊠	No∏ (If⊣	no, explain Remarks.)		
Are Vegetation , Soil , or Hydrology significantl	y disturbed?	Ar	ea "Normal (Circumstances" present?	Yes 🛛 No 🗌	
Are Vegetation , Soil , or Hydrology naturally p	roblematic?	(If need	ed, explain a	any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing sa	ampling po	int locatio	ons, transects, impo	rtant features, etc.	
Hydrophytic Vegetation Present? Yes No	3					
Hydric Soils Present? Yes Ves No	\triangleleft	Is the Sa	mpled Area	Vee 🗖 🛛 Ne		
Wetland Hydrology Present? Yes D No	\triangleleft	within a	wettand?			
Remarks: This test plot was located along the wester	n site boundary	y, just southw	est of Wetla	nd A. The vegetation in th	his test plot consisted of	
herbaceous species only. This test plot met only one w	etland indicato	or for vegetati	on with 100	percent of the dominant w	egetation being hydrophy	tic;
therefore it does not meet the criteria of being wetland.	. The majority of	of the site, we	tlands and u	plands, was vegetated by	y reed canarygrass (Phala	ris
arundinacea).						
VEGEIATION (Use scientific names)						
	Absolute	Dominant	Indicator	Dominance Test Wor	ksheet	
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status			
1.	%			Number of Dominant S	species 1	(A)
2.	%			That Are OBL, FACW,	or FAC:	
3	%			Tatal Number of Damin	1	
4	%			Total Number of Domin	$\frac{1}{1}$	(B)
Total Cover:	%			Species Across All Stra	ala.	
				Percent of Dominant S	pecies <u>100</u>	(A/B)
Sapling/Shrub Stratum (Plot size: 5 ft, radius)				That Are OBL, FACW.	or FAC	
<u></u>	%			Prevalence Index wor	rksheet	
2.	%			Total % Cover o	of: Multiply by:	
3.	%			OBL species	x 1=	
4.	%			FACW species	x 2=	
5.	%			FAC species	x 3=	
Total Cover:	%			FACU species	x 4=	
Herb Stratum (Plot size: <u>5</u> ft radius)				UPL species	x 5=	
1. Phalaris arundinacea	65%	yes	FACW	Column Totals:	(A)	(B)
2. Hypochaeris radicata	15%	no	FACU	Prevalence	e Index = B/A=	
3. Dipsacus fullonum	10%	no	FAC	Hydrophytic Vegetati	on Indicators:	
4. Daucus carota	5%	no	FACU	1 – Rapid Test for	or Hydrophytic Vegetation	
				🛛 🛛 2 – Dominance T	est is >50%	
5. Trifolium pratense	5%	no	FACU	3 - Prevalence In	idex is $\leq 3.0^1$	
6.	%			4 - Morphologica	I Adaptations ¹ (Provide	
				supporting data I	n Remarks or on a separa	te sheet)
/	<u> </u>				agular Dlanta ¹	
8	<u> </u>			Vvetland INon-Vas	scular Plants	-:)
I Olal Cover: Weady Vina Stratum (Diat aiza: 20 ft radius)	100%				rophytic vegetation (Expla	ain)
<u>1 (Piot Size: 30</u> it facility)	0/			¹ Indicators of hydric so	il and wotland bydrology	
2	<u> </u>			Must be present unles	e disturbed or problematic	
Z	<u> </u>			indot be present, unles	s disturbed of problematic	•
Total Cover:	70				D (0)	
				Hydrophytic Vegetatio	n Present?	–
% Bare Ground in Herb Stratum 0%					Yes⊠	No
Remarks: The hydrophytic vegetation criterion is met	due to 100% c	of the domina	nt vegetation	within the test plot havin	g either OBL, FACW, or F	AC
indicator statuses.						

Profile Description: (Desc	ribe to the dep	th needed to doc	ument the indic	ator or confirm	m the	absence of indicators.)	Company Comment
Depth Matrix	C		Redox Feature	es			
(inches) Color (moist)	%	Color (moist)	%	Type ¹ L	_OC ²	Texture	Remarks
0-6 10YR3/3	100%		%			gravelly loam	See Remarks Below
·	<u>%</u>						
—— ——	<u> </u>						
l	<u> </u>						
	<u> </u>		%	<u> </u>			
	%		%				
	%		%				
¹ Type: C=Concentration, I	D=Depletion, RI	M=Reduced Matrix	, CS=Covered o	r Coated Sand	Grain	ns. ² Location: PL=Pore Lini	ng, M=Matrix
Hydric Soil Indicators: (Ap	oplicable to all	LRRs, unless oth	nerwise noted.)			Indicators for Problemat	ic Hydric Soils
\square Histosal (A1)		Sandy Redo	((35) riv (86)			Z CM MUCK (A10) Red Parent Material (TE	20)
			lix (30)			Very Shallow Dark Surfa	-2) ace (TF12)
Black Histic (A3)		Loamy Muck	y Mineral (F1) (e	cept MLRA 1)	Other (Explain in Remai	rks)
Hvdrogen Sulfide (A4)		Loamy Gleve	d Matrix (F2)		,		-7
Depleted Below Dark Su	rface (A11)	Depleted Ma	trix (F3)				
Thick Dark Surface (A12)	Redox Dark	Surface (F6)				
Sandy Mucky Minerals (S1)	Depleted Dar	k Surface (F7)			³ Indicators of hydrophytic v	egetation and
Sandy Gleyed Matrix (S4	4)	Redox Depre	ssions (F8)			Wetland hydrology mus	t be present
Restrictive Layer (if prese	nt):	-				, , ,	- · ·
Type: <u>Hard pan</u>					Hy	dric Soil Present?	
Depth (inches):6							
Remarks: The soil consister	d of historic com	nacted fill materia	land gravel. The	re was no evid	lence	of hydric soils within this tes	t plot
Remarks. The soli consister		ipacted ini materia	rand graver. The		lence		a piot.
HYDROLOGY							
Wetland Hydrology Indica	tors:					Secondary Indicato	ors
Drimon Indicators (min. of a						(2 or more required	()
Primary indicators (min. or c	one required; ch	еск ан тпат арруу					
Surface Water (A1)		□ Water-Staine	d Leaves (B9) (e	except MI RA 1	24		and 4B)
\square High Water Table (A2)		Salt Crust (B	11)		·, - , -,	Drainage Patter	ns (B10)
\Box Saturation (A3)		Aquatic Inver	tebrates (B13)			Dry-Season Wa	ter Table (C2)
Water Marks (B1)		Hydrogen Su	lfide Odor (C1)			☐ Saturation Visib	le on Aerial Imagery (C9)
Sediment Deposits (B2)		Oxidized Rhi	zospheres along	Living Roots (0	C3)	Geomorphic Po	sition (D2)
Drift Deposits (B3)		Presence of	Reduced Iron (C4	4)	,	 □ Shallow Aquitar	d (D3)
Algal Mat or crust (B4)		Recent Iron F	Reduction in Tille	d Soils (C6)		FAC-Neutral Te	st (D5)
□ Iron Deposits (B5) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A)						inds (D6) (LRR A)	
Surface Soil Cracks (B6))	☐Other (Explain	n in Remarks)			Frost-Heave Hu	mmocks (D4)
Inundation Visible on Aerial Imagery (B7)							
Field Observations:							
Surface Water Present?			eptn (Inches):		Mot	land Hydrology Drocont?	
Saturation Present?			eptin (inches).		wei	iand hydrology Fresent?	Yes 🗖 No 🕅
(Includes Capillary fringe)			eptir (menes).				
Describe Recorded Data (S	tream gauge, m	onitoring well, aer	ial photos, previo	ous inspections), if av	/ailable:	
, , , , , , , , , , , , , , , , , , ,	0 0 1	0		•	,.		
Description of the second seco			. 1. 1				
Remarks: There was no evid	ence of hydrold	ogy within this test	piot.				

Project/Site: HJ Delineation		City/Co	unty: <u>Chehal</u>	is/Lewis Sampling	Date: 8/27/2020
Applicant/Owner: Herb Johnson			State: W	A Sam	pling Point: TP-2
Investigator(s): 7Wills, KT		Sectio	on, Township	, Range: <u>4, 13N, 2W</u>	
Landform (hillslope, terrace, etc.): Terrace		Local relief: Co	oncave	007404	Slope (%): <u><3%</u>
Subregion (LRR): A2	Lat: 46.644	928	_ Long: <u>-122.</u>		itum: NAD83
Are climatic / bydrologic conditions on the site typical fr	siopes	voar2 Voe		no ovolajo Romarka)	
Are Vegetation Soil or Hydrology significant	v disturbed?	yeai: ies⊠ ∆r	ea "Normal (Circumstances" present? Ves	
Are Vegetation Soil or Hydrology asymptotic	roblematic?	(If need	led explain a	any answers in Remarks)	
SUMMARY OF FINDINGS – Attach site man	showings	ampling po	int locatio	ns transects importa	nt features etc
Ukutan kutia Vanatatian Draganta Van Man Ma					it leatures, etc.
Hydrophytic Vegetation Present? Yes X No L Hydric Soils Procent? Yes X No C	4	Is the Sa	mpled Area		
Wetland Hydrology Present? Yes X No		within a	Wetland?	Yes⊠ No⊡	
Remarks: This test plot was located in the western po	 ortion of the sit	te, within the s	outhwestern	portion of Wetland A. The ve	egetation in this test plot
consisted of herbaceous species only. This test plot me	et all three we	tland indicator	rs with 100 p	ercent hydrophytic vegetation	n, soils with a Depleted Matrix
(F3), and the presence of hydrologic indicators; Water	Stained Leave	es (B9), Geom	norphic Positi	ion (D2), and a positive FAC-	Neutral Test (D5). The
majority of the site, wetlands and uplands, was vegeta	ted by reed ca	anarygrass (Pł	nalaris arund	inacea).	
VEGETATION (Use scientific names)					
	Absolute	Dominant	Indicator	Dominance Test Worksh	eet
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status		
1	%			Number of Dominant Spec	ies <u>1</u> (A)
2	%			I hat Are OBL, FACW, or F	AC:
3	<u> %</u>		. <u> </u>	Total Number of Dominant	
4Tatal Cavar	<u> % </u>			Species Across All Strata:	<u> </u>
Total Cover:	%				100 (A/P)
				Percent of Dominant Spec	ies <u>100</u> (A/B)
<u>Sapling/Shrub Stratum</u> (Plot size: <u>5 f</u> t. radius)				That Are OBL, FACW, or F	AC
1	%			Prevalence Index worksh	leet
2	<u>%</u>			Total % Cover of:	Multiply by:
3.	<u> % </u>				x 1=
4	<u> </u>				X 2=
5Total Cover:	<u> </u>				× 3=
Herb Stratum (Plot size: 5 ft radius)	70				^ ^
1. Phalaris arundinacea	100%	ves	FACW	Column Totals:	(A) (B)
2.	%			Prevalence In	dex = B/A=
3.	%			Hydrophytic Vegetation	ndicators:
4.	0/			☑ 1 – Rapid Test for H	vdrophytic Vegetation
	70			2 – Dominance Test	is >50%
5	%			3 - Prevalence Index	is ≤3.0 ¹
6.	%			4 - Morphological Ad	aptations ¹ (Provide
-				supporting data In R	emarks or on a separate sheet)
/	<u> % </u>				lor Planta ¹
8Total Covor:	100%				al Plants [*]
Woody Vine Stratum (Plot size: 30 ft radius)	100 /6				
1.	%			¹ Indicators of hydric soil an	nd wetland hydrology
2.	%			Must be present, unless di	sturbed or problematic.
Total Cover:	%			1 /	I
	<u> </u>			Hydrophytic Vegetation P	resent?
% Bare Ground in Herb Stratum 0%					Yes⊠ No□
Remarks: The hydrophytic vegetation criterion is met	due to 100%	of the vegetati	ion within the	e test plot having FACW indic	ator statuses.
, , , , , , , , , , , , , , , , , , , ,		5		1 0	

Profile Description: (Describe to the dep	th needed to docu	ment the ind	icator or conf	irm the a	absence of indicators.)	· -	
Dopth Matrix		Podov Foot	uroe				
(inches) Color (moist) %	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks	
0-2 10YR3/2 100%		%			loam		
2-16 10YR4/2 90%	10YR4/6	10%	С	PL	loamy clay		
		<u>%</u>			·		
· ·		<u>%</u>			· ·		
<u> </u>		<u> </u>			·		
<u> </u>		%			·		
<u> </u>		%					
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix,	CS=Covered	or Coated Sa	nd Grains	s. ² Location: PL=Pore Lining,	M=Matrix	
Hydric Soil Indicators: (Applicable to all	LRRs, unless othe	rwise noted.	.)		Indicators for Problematic	Hydric Soils	
Histosal (A1)	Sandy Redox	(S5)			2 cm Muck (A10)		
		K (50)			Very Shallow Dark Surface	(TF12)	
Black Histic (A3)	Loamy Mucky	Mineral (F1) (except MLRA	(1)	Other (Explain in Remarks))	
Hydrogen Sulfide (A4)	Loamy Gleyed	Matrix (F2)	•		_ 、 ,		
Depleted Below Dark Surface (A11)	Depleted Matri	x (F3)					
Thick Dark Surface (A12)	Redox Dark Su	urface (F6)					
Sandy Mucky Minerals (S1)	Depleted Dark	Surface (F7)		:	³ Indicators of hydrophytic vege	etation and	
Sandy Gleyed Matrix (S4)	Redox Depres	sions (F8)			Wetland hydrology must be	e present	
Restrictive Layer (if present):						•	
T							
Туре:				Нус	iric Soli Present?		
Depth (inches):							
Remarks: The hydric soil indicator Deplete	d Matrix (F3) was m	et due to a ma	atrix value of 4	and a ch	roma of 1 with more than 2 pe	ercent redox	
concentrations found in pore linings.							
						·	
					<u>Coondany Indiantora</u>	<u>, </u>	
wettand hydrology indicators.					(2 or more required)		
Primary Indicators (min. of one required; ch	eck all that apply)				<u>(</u>		
					Water Stained Lea	ves (B9)	
Surface Water (A1)	Water-Stained	Leaves (B9)	(except MLRA	A 1, 2, 4A	A, & 4B) (MLRA 1, 2, 4A, ar	nd 4B)	
High Water Table (A2)	Salt Crust (B1	1)			Drainage Patterns	(B10)	
Saturation (A3)	Aquatic Inverte	ebrates (B13)			Dry-Season Water	Table (C2)	
Water Marks (B1)	Hydrogen Sulf	ide Odor (C1)			Saturation Visible o	on Aerial Imagery (C9)	
Sediment Deposits (B2)	Oxidized Rhizo	ospheres alon	ng Living Roots	s (C3)	Geomorphic Positio	on (D2)	
Drift Deposits (B3)	Presence of R	educed Iron (C4)		Shallow Aquitard (I	D3)	
☐ Algal Mat or crust (B4)	Recent Iron Re	eduction in Til	led Soils (C6)		☑ FAC-Neutral Test (D5)	
Iron Deposits (B5)						s (D6) (LRR A)	
Surface Soil Cracks (B6) UOther (Explain in Remarks)							
Inundation Visible on Aerial Imagery (B	()						
Field Observations:							
Surface Water Present? Yes	No 🖂 🛛 Der	oth (Inches):					
Water Table Present? Yes	No 🖾 🛛 Dej	oth (Inches):		Wetl	and Hydrology Present?		
Saturation Present? Yes	No 🛛 De	oth (Inches):		ļ		Yes 🛛 No 🗌	
(Includes Capillary fringe)							
Describe Recorded Data (Stream gauge, n	nonitoring well, aeria	I photos, prev	/ious inspectio	ns), if ava	ailable:		
Remarks:The hydrology indicator, Water S	tained Seaves (B9)	were found or	n the surface o	f the gro	und within the test plot. Addtio	nally, the test plot was	
located in a depression (Geomorphic Posit	on D2) and had a p	ositve FAC-N	eutral Test (D	5).			

Project/Site: HJ Delineation		City/Co	unty:Chehali	s/Lewis Sampli	ng Date: 8/27/2020
Applicant/Owner: Herb Johnson		·	State: W	A S	ampling Point: TP-3
Investigator(s): 7Wills, KT		Sectio	n, Township	, Range: 4, 13N, 2W	
Landform (hillslope, terrace, etc.): Terrace		Local relief: Co	oncave		Slope (%): <u><3%</u>
Subregion (LRR): <u>A2</u>	Lat: 46.644	928	Long: <u>-122.</u>	936961	Datum: NAD83
Soil Map Unit Name: Lacamas silt loam, 0 to 3 percent	slopes		N	WI classification: PEM1/S	SC
Are climatic / hydrologic conditions on the site typical for	or this time of	year? Yes⊠	No∐ (If ı	no, explain Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Ar	ea "Normal C	Circumstances" present?	/es⊠ No∐
Are Vegetation , Soil , or Hydrology naturally p	oblematic?	(If need	ed, explain a	iny answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing s	ampling po	int locatio	ns, transects, impor	tant features, etc.
Hydrophytic Vegetation Present? Yes ⊠ No [Hydric Soils Present? Yes ⊠ No [Is the Sa within a	mpled Area	Yes⊠ NoΓ	7
Wetland Hydrology Present? Yes 🛛 No					<u> </u>
(F3), and the presence of hydrologic indicators; Water majority of the site, wetlands and uplands, was vegetat	at all three we Stained Leave and by reed ca	, within the sc tland indicator es (B9), Geom anarygrass (Ph	is with 100 p orphic Positi nalaris arundi	ercent hydrophytic vegeta on (D2), and a positive FA nacea).	tion, soils with a Depleted Matrix AC-Neutral Test (D5). The
VEGETATION (Use scientific names)					
Tree Stratum (Plot size:30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Work	sheet
1.	%			Number of Dominant Sp	Decies 2 (A)
2.	%			That Are OBL, FACW, o	or FAC: (**)
3.	%				
4.	%			Total Number of Domina	ant 2 (B)
Total Cover:	%			Species Across All Strat	
Sapling/Shrub Stratum (Plot size: <u>5 ft.</u> radius)				Percent of Dominant Sp That Are OBL, FACW, o	ecies <u>100</u> (A/B) or FAC
1	%			Prevalence Index work	csheet
2	<u>%</u>			I otal % Cover of	: Multiply by:
3	<u>%</u>				X 1=
4	<u>%</u>				X 2=
5Total Cover:				EACU species	X 3=
Herb Stratum (Plot size: 5 ft radius)	70				X 5=
1 Phalaris arundinacea	65%	ves	FACW	Column Totals	(A) (B)
2. Ranunculus repens	35%	ves	FAC	Prevalence	B/A = B/A = 0
3.	<u> </u>			Hydrophytic Vegetatio	on Indicators:
4.				☐ 1 – Rapid Test for	Hydrophytic Vegetation
	%			2 – Dominance Te	est is >50%
5.	%			3 - Prevalence Inc	dex is ≤3.0¹
6.	0/			4 - Morphological	Adaptations ¹ (Provide
	70			supporting data In	Remarks or on a separate sheet
7	%				
8	%			Wetland Non-Vas	cular Plants ¹
Total Cover:	100%			Problematic Hydro	ophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: <u>30</u> ft radius)					
1	%			Indicators of hydric soil	and wetland hydrology
2	<u>%</u>			Must be present, unless	disturbed or problematic.
Total Cover:	%			Hydrophytic Vegetation	Present?
% Bare Ground in Herb Stratum 0%					Yes No
Remarks: The hydrophytic vegetation criterion is met	due to 100%	of the vegetati	on within the	test plot having either O	BL FACW or FAC indicator
statuses.				j	,,,

Profile Description: (Describe to the dep	oth needed to docu	ment the ind	icator or confi	rm the a	bsence of indicators.)	
Depth Matrix		Redox Feat	ures			
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3 10YR3/2 100%		%			loam	
<u>3-16 10YR4/2 90%</u>	10YR4/6	10%	C	PL	loamy clay	
<u>%</u>		<u>%</u>				
<u></u>		<u> </u>				
<u> </u>		<u> </u>	·			
<u> </u>		%				
%		%				
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix,	CS=Covered	or Coated Sar	d Grains.	² Location: PL=Pore Linin	g, M=Matrix
Hydric Soil Indicators: (Applicable to all	LRRs, unless othe	rwise noted.	.)		Indicators for Problemation	c Hydric Soils
	Stripped Matrix	(S6)			Continuuck (A10)	2)
					Very Shallow Dark Surface	., ce (TF12)
Black Histic (A3)	Loamy Mucky	Mineral (F1) (except MLRA	1) 🗌	Other (Explain in Remark	s)
Hydrogen Sulfide (A4)	Loamy Gleyed	Matrix (F2)				
Depleted Below Dark Surface (A11)	Depleted Matri	x (F3)				
Thick Dark Surface (A12)	Redox Dark Su	urface (F6)				
Sandy Mucky Minerals (S1)	Depleted Dark	Surface (F7)		3	ndicators of hydrophytic ve	getation and
Sandy Gleyed Matrix (S4)	Redox Depres	sions (F8)			Wetland hydrology must	be present
Restrictive Layer (if present):						
Type:				Hydr	ic Soil Present?	
- Type:				inyai		Yes⊠ No⊡
Depth (inches):						
Remarks: The hydric soil indicator Depleter	d Matrix (F3) was m	et due to a ma	atrix value of 4	and a chr	oma of 1 with more than 2	percent redox
concentrations found in pore linings.						
HYDROLOGY						
Wetland Hydrology Indicators:					Secondary Indicator	S
					(2 or more required)	
Primary Indicators (min. of one required; cf	neck all that apply)					
Surface Water (A1)	□ Water-Stained		(ovcont MI PA	1 2 1 1		aves (B9)
High Water Table (A2)	Salt Crust (B1	Leaves (D3)		· ·, ∠, ᠇∧,	Drainage Pattern	s (B10)
\square Saturation (A3)	Aquatic Inverte	brates (B13)			Drv-Season Wate	er Table (C2)
Water Marks (B1)	Hvdrogen Sulf	de Odor (C1)			Saturation Visible	e on Aerial Imagery (C9)
Sediment Deposits (B2)	Oxidized Rhizo	spheres alon	ng Living Roots	(C3)	Geomorphic Pos	ition (D2)
Drift Deposits (B3)	Presence of R	educed Iron (C4)	()	Shallow Aquitard	(D3)
Algal Mat or crust (B4)	Recent Iron Re	eduction in Til	led Soils (C6)		☐ FAC-Neutral Tes	t (D5)
Iron Deposits (B5)	Stunted or Stre	essed Plants	(D1) (LRR A)		Raised Ant Moun	ds (D6) (LRR A)
Surface Soil Cracks (B6)	Other (Explain	in Remarks)			Frost-Heave Hun	nmocks (D4)
□ Inundation Visible on Aerial Imagery (B	7)					
				-		
Field Observations:						
Water Table Present? Yes		oun (inches):		14/- 11-	n d Uhadnala ma Dua a mtO	
		th (Inchas).		VVAtia	na Hvaroloav Procont /	
Saturation Present? Yes		oth (Inches):		wetia	na Hydrology Present?	Yes 🖂 No 🗔
Saturation Present? Yes (Includes Capillary fringe)	No 🛛 Der No 🖾 Der	oth (Inches): oth (Inches):		wetia	nd Hydrology Present?	Yes 🛛 No 🗌
Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, n	No 🖾 Dep No 🖾 Dep nonitoring well, aeria	oth (Inches): oth (Inches): I photos, prev	vious inspectior	ns), if avai	ilable:	Yes 🛛 No 🗌
Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, n	No 🖾 Dep No 🖾 Dep nonitoring well, aeria	oth (Inches): oth (Inches): I photos, prev	vious inspectior	ns), if avai	ilable:	Yes 🛛 No 🗌
Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, n Remarks: The bydrology indicator, Water S	No Dep No Dep nonitoring well, aeria	oth (Inches): oth (Inches): I photos, prev	vious inspection	s), if avai	ilable:	
Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, n Remarks:The hydrology indicator, Water S located in a depression (Geomorphic Posit	No O Dep No O Dep nonitoring well, aeria tained Seaves (B9)	bth (Inches): bth (Inches): I photos, prev were found or positve FAC-N	vious inspectior n the surface of eutral Test (D5	the grou	nd Hydrology Present? ilable: nd within the test plot. Addt	Yes 🛛 No 🗌
Saturation Present? Yes [] (Includes Capillary fringe) Describe Recorded Data (Stream gauge, n Remarks:The hydrology indicator, Water S located in a depression (Geomorphic Posit)	No Dep No Dep nonitoring well, aeria tained Seaves (B9) ion D2) and had a p	oth (Inches): oth (Inches): I photos, prev were found or positve FAC-N	vious inspectior In the surface of eutral Test (D5	the grou	Ind Hydrology Present?	Yes No
Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, n Remarks:The hydrology indicator, Water S located in a depression (Geomorphic Posit	No O Dep No O Dep nonitoring well, aeria tained Seaves (B9) ion D2) and had a po	oth (Inches): oth (Inches): I photos, prev were found or ositve FAC-N	vious inspectior In the surface of eutral Test (D5	the grou	ilable: nd within the test plot. Addt	Yes No
Water Fable Fresent: Freschilt Saturation Present? Yes [] (Includes Capillary fringe) Describe Recorded Data (Stream gauge, n Describe Recorded Data (Stream gauge, n Remarks:The hydrology indicator, Water S located in a depression (Geomorphic Posit)	No O Dep No O Dep nonitoring well, aeria tained Seaves (B9) ion D2) and had a p	oth (Inches): oth (Inches): I photos, prev were found or ositve FAC-N	vious inspectior In the surface of eutral Test (D5	the grou	ilable: nd within the test plot. Addt	Yes No

State: WA Sampling P n, Township, Range: 4, 13N, 2W Donvex	Point: TP-4 Slope (%): <3% NAD83 o□ tures, etc. sted of herbaceous ohytic; therefore it does s arundinacea). 1 (A) 1 (B) 100 (A/B) Multiply by:
n, Township, Range: 4, 13N, 2W Donvex	Slope (%):<3% NAD83
Iong: 122.936975 Datum: I NO (If no, explain Remarks.) ea "Normal Circumstances" present? Yes Need, explain any answers in Remarks.) int locations, transects, important feat mpled Area Vetland A. The vegetation in this test plot consis bercent of the dominant vegetation being hydrop ds, was vegetated by reed canarygrass (Phalarited Status) Indicator Dominance Test Worksheet Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet	Slope (%):<3% NAD83 o□ tures, etc. sted of herbaceous ohytic; therefore it does s arundinacea). 1 (A) 1 (B) 0 (A/B) Multiply by:
Long: -122.936975 Datum: I NO (If no, explain Remarks.) ea "Normal Circumstances" present? Yes Need, explain any answers in Remarks.) int locations, transects, important feat mpled Area Vetland A. The vegetation in this test plot consis bercent of the dominant vegetation being hydrop ds, was vegetated by reed canarygrass (Phalaris) Indicator Dominance Test Worksheet Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet	NAD83 o□ tures, etc. ted of herbaceous ohytic; therefore it does s arundinacea). <u>1</u> (A) <u>1</u> (B) <u>100</u> (A/B) Multiply by:
NWI classification: PEM1/SSC No (If no, explain Remarks.) ea "Normal Circumstances" present? Yes Ne ed, explain any answers in Remarks.) int locations, transects, important feat mpled Area Yes No Vetland A. The vegetation in this test plot consis bercent of the dominant vegetation being hydrop ds, was vegetated by reed canarygrass (Phalarist Indicator Dominance Test Worksheet Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet OBL species OBL species	o tures, etc. tures, etc. tures, etc. ted of herbaceous ohytic; therefore it does s arundinacea).
No∐ (If no, explain Remarks.) ea "Normal Circumstances" present? Yes No int locations, transects, important feat mpled Area Wetland? Yes □ No Vetland A. The vegetation in this test plot consis bercent of the dominant vegetation being hydrop ds, was vegetated by reed canarygrass (Phalaris Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC Percent of Dominant Species That Are OBL, FACW, or FAC Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet	tures, etc. ted of herbaceous ohytic; therefore it does s arundinacea). (A) (B) (D) (A/B) Multiply by:
Indicator Dominance Test Worksheet Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC Total Number of Dominant Species That Are OBL, FACW, or FAC Total Number of Dominant Species That Are OBL, FACW, or FAC Total Number of Dominant Species That Are OBL, FACW, or FAC Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	•∟ tures, etc. sted of herbaceous bytic; therefore it does s arundinacea). 1 (A) 1 (B) 0 (A/B) Multiply by:
Indicator Dominance Test Worksheet Indicator Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC Total Number of Dominant Species That Are OBL, FACW, or FAC Total Number of Dominant Species That Are OBL, FACW, or FAC Total Number of Dominant Species That Are OBL, FACW, or FAC Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	tures, etc.
Int locations, transects, important feat mpled Area Wetland? Yes No Vetland A. The vegetation in this test plot consis bercent of the dominant vegetation being hydrop ds, was vegetated by reed canarygrass (Phalarian Indicator Dominance Test Worksheet Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	tures, etc.
Indicator Dominance Test Worksheet Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species Total Number of Dominant Species That Are OBL, FACW, or FAC: OBL Species OBL Species	ted of herbaceous obytic; therefore it does s arundinacea).
Indicator Yes No Indicator Dominance Test Worksheet Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species Total Number of Dominant Species Species Across All Strata: Percent of Dominant Species Total Xer OBL, FACW, or FAC OBL species OBL species	ted of herbaceous obytic; therefore it does s arundinacea).
Indicator Dominance Test Worksheet Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Species Across All Strata: OBL species OBL species	ted of herbaceous obytic; therefore it does s arundinacea).
Indicator Dominance Test Worksheet Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Total Number of Dominant Species Species Across All Strata: Percent of Dominant Species Percent of Dominant Species That Are OBL, FACW, or FAC: Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC OBL Species OBL Species	<pre>ited of herbaceous bytic; therefore it does s arundinacea). </pre>
Indicator Status Dominance Test Worksheet Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	(A) (B) (A/B) Multiply by:
Indicator Status Dominance Test Worksheet Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	(A) (B) (A/B) Multiply by:
Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	(A) (B) (A/B) Multiply by:
That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	(A) (B) (A/B) Multiply by:
Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	(B) (A/B) Multiply by:
Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	(B) (A/B) Multiply by:
Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	(A/B)
Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: OBL species	(A/B)
That Are OBL, FACW, or FAC	Multiply by:
Prevalence Index worksheet Total % Cover of: OBL species	Multiply by:
Total % Cover of: OBL species	Multiply by:
OBL species	
	x 1=
FACW species	x 2=
FAC species	x 3=
FACU species	x 4=
UPL species	x 5=
FACW Column Totals:	(A) (B)
FAC Prevalence Index = I	B/A=
FACU Hydrophytic Vegetation Indicat	ors:
FACU 1 – Rapid Test for Hydroph	ytic Vegetation
\boxtimes 2 – Dominance lest is >50°	%
FACU [] 3 - Prevalence Index is ≤3.0)'
	5 01 011 a separate sheet)
Wetland Non-Vascular Plan	nts ¹
Problematic Hydrophytic Ve	egetation ¹ (Explain)
	J ()
¹ Indicators of hydric soil and wetla	and hydrology
Must be present, unless disturbed	d or problematic.
Hydrophytic Vegetation Present	? Ves⊠ No⊡
nt vegetation within the test plot having either OF	
	FACU species FACU species UPL species UPL species FAC Prevalence Index = FAC Prevalence Index = FACU 1 - Rapid Test for Hydroph Q 2 - Dominance Test is >50° FACU 3 - Prevalence Index is <3.0

Profile Description: (Describe to the dep	th needed to docu	ment the ind	icator or conf	irm the	absence of indicators.)		
Depth Matrix		Redox Featu	ures				
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-11 10YR3/3 100%		%			loam		
<u>11-16 10YR4/2 98%</u>	10YR4/6	2%	C	PL	loamy clay		
<u> </u>		<u> </u>					
<u></u>		<u> </u>	·				
<u> </u>		<u> </u>					
<u> </u>		%					
		%					
¹ Type: C=Concentration, D=Depletion, R	A=Reduced Matrix,	CS=Covered	or Coated Sa	nd Grair	ns. ² Location: PL=Pore Linin	g, M=Matrix	
Hydric Soil Indicators: (Applicable to all	LRRs, unless othe	erwise noted.)		Indicators for Problematio	c Hydric Soils	
Histosal (A1)	Sandy Redox	(35) x (86)			C CM Muck (A10)	2)	
		x (30)			Very Shallow Dark Surfac	-) ce (TF12)	
Black Histic (A3)	Loamy Mucky	Mineral (F1) (except MLRA	(1)	Other (Explain in Remark	(11 12) (S)	
Hydrogen Sulfide (A4)	Loamy Gleved	Matrix (F2)	•	,	_ 、 .	,	
Depleted Below Dark Surface (A11)	Depleted Matri	ix (F3)					
Thick Dark Surface (A12)	Redox Dark S	urface (F6)					
Sandy Mucky Minerals (S1)	Depleted Dark	Surface (F7)			³ Indicators of hydrophytic ve	getation and	
Sandy Gleyed Matrix (S4)	Redox Depres	sions (F8)			Wetland hydrology must	be present	
Restrictive Layer (if present):	·				, , , , , , , , , , , , , , , , , , , ,		
Туре:				Hy	dric Soil Present?		
Depth (inches):							
Remarks: There was no evidence of hydric	soils within this test	t plot					
Remarks. There was no evidence of figure		r plot.					
HYDROLOGY							
Wetland Hydrology Indicators:					Secondary Indicator	S	
Primary Indicators (min. of one required: ch	eck all that apply)						
	ook all that apply)				Water Stained Le	aves (B9)	
Surface Water (A1)	Water-Stained	Leaves (B9)	(except MLRA	A 1, 2, 4	A, & 4B) (MLRA 1, 2, 4A,	and 4B)	
High Water Table (A2)	Salt Crust (B1	1)	. •		Drainage Pattern	s (B10)	
Saturation (A3)	Aquatic Inverte	ebrates (B13)			Dry-Season Wate	er Table (C2)	
🔲 Water Marks (B1)	Hydrogen Sulf	ide Odor (C1)			Saturation Visible	e on Aerial Imagery (C9)	
Sediment Deposits (B2)	Oxidized Rhize	ospheres alon	g Living Roots	s (C3)	🗌 Geomorphic Posi	ition (D2)	
Drift Deposits (B3)	Presence of R	educed Iron (C4)		Shallow Aquitard	(D3)	
Algal Mat or crust (B4)	Recent Iron Re	eduction in Til	led Soils (C6)		FAC-Neutral Tes	t (D5)	
□ Iron Deposits (B5) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A)						ds (D6) (LRR A)	
Surface Soil Cracks (B6)	Other (Explain	in Remarks)			Frost-Heave Hun	nmocks (D4)	
Inundation Visible on Aerial Imagery (B7)							
Field Observations							
Field Observations:		nth (Inchas):					
Water Table Present? Yes		oth (Inches):		Wet	land Hydrology Present?		
Saturation Present? Yes		oth (Inches):			lana nyarology ricocht.	Yes 🗌 No 🖂	
(Includes Capillary fringe)							
Describe Recorded Data (Stream gauge, m	onitoring well, aeria	al photos, prev	vious inspectio	ns), if av	vailable:		
Remarks: There was no evidence of budrole		lot					
	av within this tost n						
	gy within this test p	iol.					
	gy within this test p	ilot.					
	gy within this test p	iot.					
	gy within this test p	iot.					

Applicant/Owner: Herb Johnson Investigator(s): 7Wills, KT Landform (hillslope, terrace, etc.): Terrace Subregion (LRR): A2 Are climatic / hydrologic conditions on the site typical for this Are Vegetation , Soil , or Hydrology naturally problet SUMMARY OF FINDINGS - Attach site map sho Hydrophytic Vegetation Present? Yes \(\Sigma\) No Hydrology Present? Yes \(\Sigma\) No Hydrology Present? Yes \(\Sigma\) No Remarks: This test plot was located in the central portion consisted of herbaceous species only. This test plot met all (F3), and the presence of hydrologic indicators; Water Stain majority of the site, wetlands and uplands, was vegetated by VEGETATION (Use scientific names) Tree Stratum (Plot size: 30 ft radius) 1. 2. 3. 4. 5. Total Cover: Herb Stratum (Plot size: 5 ft radius) 1. Phalaris arundinacea 8 2. 3. 4. 5. 6. 7.	t: 46.64 bes s time of turbed? matic? >wing s of the sit three we bed Leav by reed c isolute Cover % % % % % % % % % % % % % % % % % % %	Section Local relief: Color 3353 year? Yes Ar (If need ampling po Is the Sat within a N e, within the sc etland indicator es (B9), Geomanarygrass (Ph Dominant Species?	State: W/ n, Township, oncave Long: -122.9 No[(If r ea "Normal C ed, explain a int locatio mpled Area Wetland? outheastern p 's with 100 pe iorphic Positi halaris arundi Indicator Status	A Sampling Point: TP-5 , Range: 4, 13N, 2W Slope (%): <3% 937408 Datum: NAD83 WI classification: PEM1/SSC no, explain Remarks.) Circumstances" present? Yes No any answers in Remarks.) ons, transects, important features, etc. Yes No vortion of Wetland A. The vegetation in this test plot ercent hydrophytic vegetation, soils with a Depleted Mail on (D2), and a positive FAC-Neutral Test (D5). The inacea). Dominance Test Worksheet Number of Dominant Species 1 (A) Total Number of Dominant 1 Species Across All Strata: 100 Percent of Dominant Species 100 That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: Multiply by: OBL species x 1-
Investigator(s): 7Wills, KT Landform (hillslope, terrace, etc.): Terrace Subregion (LRR): A2 Soil Map Unit Name: Lacamas silt loam, 0 to 3 percent slop Are climatic / hydrologic conditions on the site typical for this Are Vegetation , Soil , or Hydrology instantly dist Are Vegetation , Soil , or Hydrology instantly dist Are Vegetation , Soil , or Hydrology instantly dist Are Vegetation , Soil , or Hydrology instantly dist Are Vegetation , Soil , or Hydrology instantly dist Are Vegetation , Soil , or Hydrology instantly dist Are Vegetation , Soil , or Hydrology instantly dist Are Vegetation , Soil , or Hydrology instantly dist Are Vegetation , Soil , or Hydrology instantly dist Are Vegetation , Soil , or Hydrology instantly dist Atter Vegetation , Soil , or Hydrology instantly dist Subregion Atter , Soil , or Hydrology instantly dist Atter , Soil , and the presence of hydrologic indicators; Water Stain majority of the site, wetlands and uplands, was vegetated by VEGETATION (Use scientific names) Tree Stratum (Plot size: <u>30</u> ft radius) 1. 2. 3. 4. 5. 5. 7.	t: 46.64 bes s time of turbed? matic? >wing s of the sit three we bed Leav y reed c. solute Cover % % % % % % % % % % % % % % % % % % %	Section Local relief: Colored 3353 year? Yes Ar (If need ampling po Is the Sat within a V e, within the sc etland indicator es (B9), Geom anarygrass (Ph Dominant Species?	Indicator	
Landform (hillslope, terrace, etc.): Terrace Lat Subregion (LRR): A2 Lat Soil Map Unit Name: Lacamas silt loam, 0 to 3 percent slop Are vigetation [, Soil], or Hydrology] significantly dist Are Vegetation [, Soil], or Hydrology] naturally problet significantly dist SUMMARY OF FINDINGS – Attach site map sho Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No No Hydrocology Present? Yes No Remarks: This test plot was located in the central portion consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain Mo YEGETATION (Use scientific names) % i I.	tt: 46.64 pes s time of turbed? matic? pwing s of the sit three we red Leav y reed c solute Cover % % % % % % % % % % % % %	Local relief: Cd 3353 year? Yes Ar (If need ampling po Is the Sar within a V e, within the sc etland indicator es (B9), Geom anarygrass (Ph Dominant Species?	Indicator	Slope (%):<3% 937408 Datum: NAD83 WI classification: PEM1/SSC no, explain Remarks.) Circumstances" present? Yes⊠ No□ any answers in Remarks.) ons, transects, important features, etc. Yes⊠ No□ portion of Wetland A. The vegetation in this test plot ercent hydrophytic vegetation, soils with a Depleted Marion (D2), and a positive FAC-Neutral Test (D5). The inacea). Dominance Test Worksheet Number of Dominant Species 1 That Are OBL, FACW, or FAC: Total Number of Dominant Species Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: Multiply by: OBL species
Subregion (LRR): <u>A2</u> Lat Soil Map Unit Name: <u>Lacamas silt loam, 0 to 3 percent slop</u> Are climatic / hydrologic conditions on the site typical for this Are Vegetation, Soil, or Hydrology ingificiantly dist Are Vegetation, Soil, or Hydrology inginificantly dist Are Vegetation, Soil, or Hydrology inginificantly dist Are Vegetation, Soil, or Hydrology naturally problet SUMMARY OF FINDINGS - Attach site map sho Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Species only. This test plot met all (F3), and the presence of hydrologic indicators; Water Stain majority of the site, wetlands and uplands, was vegetated by VEGETATION (Use scientific names) A. Tree Stratum (Plot size: <u>30</u> ft radius) 1. 2. 3. 4. Sapling/Shrub Stratum (Plot size: <u>5</u> ft. radius) 1. 2. 3. 4. 5. 6. 7.	tt: 46.64! bes s time of turbed? matic? Dwing s of the sit three we hed Leav y reed c solute Cover % % % % % % % % % % % % %	year? Yes⊠ Ar (If need ampling po Is the Sar within a N e, within the sc etland indicator es (B9), Geom anarygrass (Ph Dominant Species?	Long:-122.9	937408 Datum: NAD83 WI classification: PEM1/SSC no, explain Remarks.) Circumstances" present? Yes⊠ No□ any answers in Remarks.) ons, transects, important features, etc. Yes⊠ No□ vortion of Wetland A. The vegetation in this test plot ercent hydrophytic vegetation, soils with a Depleted Mator on (D2), and a positive FAC-Neutral Test (D5). The inacea). Dominance Test Worksheet Number of Dominant Species 1 (A) Total Number of Dominant 1 Species Across All Strata: 100 Percent of Dominant Species 100 That Are OBL, FACW, or FAC 100 Percent of Dominant Species 100 That Are OBL, FACW, or FAC 100 Percent of Dominant Species 100 That Are OBL, FACW, or FAC 100 Prevalence Index worksheet 100 Total % Cover of: Multiply by: OBL species x 1–
Soil Map Unit Name: Lacamas silt loam, 0 to 3 percent slop Are climatic / hydrologic conditions on the site typical for this Are Vegetation Soil Are Vegetation Soil Stare Vegetation Soil Prevent Stare Yes No Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Remarks: This test plot was located in the central portion of consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain najority of the site, wetlands and uplands, was vegetated by VEGETATION (Use scientific names) Tree Stratum (Plot size:30 ft radius) 1. 2. 3. 4. 5. 5. 6. 7.	bes s time of turbed? matic? Dwing s of the sit three we hed Leav y reed c solute Cover % % % % % % % % % % % % %	year? Yes Ar (If need campling po Is the Sar within a V e, within the sc etland indicator es (B9), Geom anarygrass (Ph Dominant Species?	No (If r ea "Normal C led, explain a int locatio mpled Area Netland? Tutheastern p s with 100 pe torphic Positi nalaris arundi	WI classification: PEM1/SSC ho, explain Remarks.) Circumstances" present? Yes⊠ No□ any answers in Remarks.) Image: mage state
Are climatic / hydrologic conditions on the site typical for this Are Vegetation, Soil, or Hydrology naturally problem SUMMARY OF FINDINGS - Attach site map sho Hydrophytic Vegetation Present? Yes No Hydrosonis Present? Yes No Wetland Hydrology Present? Yes No Remarks: This test plot was located in the central portion consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain najority of the site, wetlands and uplands, was vegetated by //EGETATION (Use scientific names) //editactore //ed	s time of turbed? matic? Dwing s of the sit three we hed Leav y reed c solute Cover % % % % % % % % % % % % % % % % % % %	year? Yes⊠ Ar (If need sampling po Is the Sar within a N e, within the sc etland indicator es (B9), Geom anarygrass (Ph Dominant Species?	No (If r ea "Normal C led, explain a int locatio mpled Area Netland? furtheastern p rs with 100 pe iorphic Positi nalaris arundi Indicator Status	no, explain Remarks.) Circumstances" present? Yes⊠ No□ any answers in Remarks.) ons, transects, important features, etc. Yes⊠ No□ vortion of Wetland A. The vegetation in this test plot ercent hydrophytic vegetation, soils with a Depleted Matter on (D2), and a positive FAC-Neutral Test (D5). The inacea). Dominance Test Worksheet Number of Dominant Species 1 Total Number of Dominant Species 1 Total Number of Dominant Species 100 Percent of Dominant Species 100 That Are OBL, FACW, or FAC: 100 Percent of Dominant Species 100 That Are OBL, FACW, or FAC 100 Percent of Dominant Species 100 That Are OBL, FACW, or FAC 100 Prevalence Index worksheet 100 Total % Cover of: Multiply by: OBL species x 1=
Are Vegetation Soil or Hydrology significantly dist Are Vegetation Soil or Hydrology naturally problet SUMMARY OF FINDINGS - Attach site map sho Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Remarks: This test plot was located in the central portion consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain najority of the site, wetlands and uplands, was vegetated by //EGETATION (Use scientific names) ////////////////////////////////////	turbed? matic? Dwing s of the sit three we hed Leav y reed c solute Cover % % % % % % % % % % % % % % % % % % %	Ar (If need sampling po Is the Sar within a V e, within the sc etland indicator es (B9), Geom anarygrass (Ph Dominant Species?	ea "Normal C led, explain a int locatio mpled Area Netland? Furtheastern p rs with 100 per iorphic Positi nalaris arundi Indicator Status	Circumstances" present? Yes⊠ No□ any answers in Remarks.) ons, transects, important features, etc. Yes⊠ No□ vortion of Wetland A. The vegetation in this test plot ercent hydrophytic vegetation, soils with a Depleted Marion (D2), and a positive FAC-Neutral Test (D5). The inacea). Dominance Test Worksheet Number of Dominant Species 1 That Are OBL, FACW, or FAC: Total Number of Dominant Species Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: Multiply by: OBL species
Are Vegetation, Soil, or Hydrology naturally problet SUMMARY OF FINDINGS - Attach site map sho Hydrophytic Vegetation Present? Yes No Hydric Soils Present? Yes No Wetland Hydrology Present? Yes No Remarks: This test plot was located in the central portion consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain majority of the site, wetlands and uplands, was vegetated by //EGETATION (Use scientific names) ////////////////////////////////////	of the sit three we bed Leav y reed c besolute Cover % % % % % % % % % % % % % % % % % % %	(If need sampling po Is the Sar within a V e, within the sc etland indicator es (B9), Geom anarygrass (Ph Dominant Species?	ed, explain a int locatio mpled Area Netland? butheastern p s with 100 pe iorphic Positi nalaris arundi Indicator Status	Dominance Test Worksheet Number of Dominant Species Total Number of Dominant Species Across All Strata: 100 (A/2) Percent of Dominant Species 100 (A/2) Prevalence Index worksheet Total % Cover of: Multiply by: 0 0 0 0
SUMMARY OF FINDINGS – Attach site map sho Hydrophytic Vegetation Present? Yes No Hydric Soils Present? Yes No Wetland Hydrology Present? Yes No Remarks: This test plot was located in the central portion consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain majority of the site, wetlands and uplands, was vegetated by //EGETATION (Use scientific names) 1. 2. 3. 4.	of the sit three we bed Leav y reed c solute <u>Cover</u> % % % % % % % % % % % % % % % % % % %	Lis the Sar within a V e, within the sco etland indicator es (B9), Geom anarygrass (Ph Dominant Species?	int locatio mpled Area Vetland? Dutheastern p s with 100 pe orphic Positi nalaris arundi Indicator Status	Yes No vortion of Wetland A. The vegetation in this test plot ercent hydrophytic vegetation, soils with a Depleted Mator on (D2), and a positive FAC-Neutral Test (D5). The inacea). Dominance Test Worksheet Number of Dominant Species 1 (A) Total Number of Dominant 1 Species Across All Strata: 100 (A/ Percent of Dominant Species 100 (A/ That Are OBL, FACW, or FAC 100 (A/ Percent of Dominant Species 100 (A/ OBL species 100 (A/ Prevalence Index worksheet 100 (A/ OBL species Y 1- Y
Hydrophytic Vegetation Present? Yes \(\Sigma\) No \(\Sigma\) Hydric Soils Present? Yes \(\Sigma\) No \(\Sigma\) Remarks: This test plot was located in the central portion consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain najority of the site, wetlands and uplands, was vegetated by //EGETATION (Use scientific names) //example 1. 2. 3. 4. Sapling/Shrub Stratum (Plot size: 5 ft. radius) 1. 2. 3. 4. 5. Image: Signal (Plot size: 5 ft radius) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7.	of the sit three wo red Leav y reed c solute <u>Cover</u> % % % % % % % % % %	Is the Sate within a Vertication e, within the scatter es (B9), Geomanarygrass (Properties) Dominant Species?	Indicator	Yes No portion of Wetland A. The vegetation in this test plot ercent hydrophytic vegetation, soils with a Depleted Marion (D2), and a positive FAC-Neutral Test (D5). The inacea). Dominance Test Worksheet Number of Dominant Species 1 That Are OBL, FACW, or FAC: 1 Total Number of Dominant Species Across All Strata: 100 Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: Multiply by:
Hydric Soils Present? Yes \vee No Remarks: This test plot was located in the central portion consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain najority of the site, wetlands and uplands, was vegetated by VEGETATION (Use scientific names) Image: Tree Stratum (Plot size: 30 ft radius) 1. 2. 3. 4. Image: Total Cover: Sapling/Shrub Stratum (Plot size: 5 ft. radius) 1. 2. 3. 4. Image: Total Cover: <	of the sit three we hed Leav y reed c solute <u>Cover</u> % % % % % % % % % % % % % %	Is the Sate within a V e, within the sc etland indicator es (B9), Geomanary anarygrass (Pr Dominant Species?	Indicator	Yes No portion of Wetland A. The vegetation in this test plot ercent hydrophytic vegetation, soils with a Depleted Marion (D2), and a positive FAC-Neutral Test (D5). The inacea). Dominance Test Worksheet Number of Dominant Species 1 That Are OBL, FACW, or FAC: 1 Total Number of Dominant Species 100 Percent of Dominant Species 100 That Are OBL, FACW, or FAC: 100 Number of Dominant Species 100 Percent of Dominant Species 100 That Are OBL, FACW, or FAC 100 Percent of Dominant Species 100 OBL, FACW, or FAC Y 1=
Wetland Hydrology Present? Yes X No I Remarks: This test plot was located in the central portion consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain najority of the site, wetlands and uplands, was vegetated by VEGETATION (Use scientific names) Ab: Tree Stratum (Plot size:30 ft radius) % 0 1.	of the sit three we hed Leav y reed c bsolute <u>Cover</u> % % % % % % % % % % % % % % % % % % %	Dominant Species?	Vetland? Putheastern p s with 100 pe loorphic Positi halaris arundi Indicator Status	Yes ⊠ No[] portion of Wetland A. The vegetation in this test plot ercent hydrophytic vegetation, soils with a Depleted Mail on (D2), and a positive FAC-Neutral Test (D5). The inacea). Dominance Test Worksheet Number of Dominant Species 1 That Are OBL, FACW, or FAC: Total Number of Dominant 1 Species Across All Strata: 100 Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: Multiply by: OBL species x 1-
Remarks: This test plot was located in the central portion consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain najority of the site, wetlands and uplands, was vegetated by /EGETATION (Use scientific names) /ree Stratum (Plot size: 30 ft radius) 1. 2. 3. 4. Total Cover: 3. 4. 5. 6. 7.	of the sit three we ned Leav by reed c vsolute <u>Cover</u> % % % % % % % % % % % % % % % % % %	e, within the sc etland indicator es (B9), Geom anarygrass (Ph 	Indicator	Dominance Test Worksheet Number of Dominant Species 1 That Are OBL, FACW, or FAC: Total Number of Dominant Species Percent of Dominant Species 1 (B) Percent of Dominant Species 1 (C) Percent of Dominant Species 100 (A/ Percent of Dominant Species 100 (A/ Percent of Dominant Species That Are OBL, FACW, or FAC Percent of Dominant Species 100 (A/ That Are OBL, FACW, or FAC Percent of Dominant Species 100 (A/ OBL species 100 Y 1=
consisted of herbaceous species only. This test plot met all F3), and the presence of hydrologic indicators; Water Stain najority of the site, wetlands and uplands, was vegetated by //EGETATION (Use scientific names) //EGETATION (Use scientific names) //I. 2. 3. 4. Total Cover: Sapling/Shrub Stratum (Plot size: 5 ft. radius) 1. 2. 3. 4. Total Cover: Sapling/Shrub Stratum (Plot size: 5 ft. radius) 1. 2. 3. 4. 5. For the Stratum (Plot size: 5 ft radius) 1. 2. 3. 4. 5. 6. 7.	three working the team of	Dominant Species?	Indicator Status	ercent hydrophytic vegetation, soils with a Depleted Mailon (D2), and a positive FAC-Neutral Test (D5). The inacea). Dominance Test Worksheet Number of Dominant Species 1 That Are OBL, FACW, or FAC: Total Number of Dominant Species Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: Multiply by: OBL species
VEGETATION (Use scientific names) Ab Tree Stratum (Plot size:30 ft radius) % // 1.	Solute Cover %	Dominant Species?	Indicator Status	Dominance Test Worksheet Number of Dominant Species 1 (A) That Are OBL, FACW, or FAC: 1 (B) Total Number of Dominant 1 (B) Species Across All Strata: 100 (A/ Percent of Dominant Species 100 (A/ That Are OBL, FACW, or FAC Prevalence Index worksheet 100 (A/ OBL species x 1- 1- (B)
Tree Stratum (Plot size: <u>30</u> ft radius) Ab 1.	Solute Cover %	Dominant Species?	Indicator Status	Dominance Test Worksheet Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: Wultiply by:
1.	% % % % % % %			Number of Dominant Species 1 (A) That Are OBL, FACW, or FAC: 1 (B) Total Number of Dominant 1 (B) Species Across All Strata: 100 (A/ Percent of Dominant Species 100 (A/ That Are OBL, FACW, or FAC 100 (A/ Prevalence Index worksheet 100 (A/ Total % Cover of: Multiply by: 1- OBL species x 1- 1-
2.	% % % % % % %			That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: Multiply by: OBL species
3.	% % % % % %			Total Number of Dominant 1 (B) Species Across All Strata: 100 (A/ Percent of Dominant Species 100 (A/ That Are OBL, FACW, or FAC Prevalence Index worksheet 100 (A/ Total % Cover of: Multiply by: 1 OBL species x 1- 1 (B)
4. Total Cover: Sapling/Shrub Stratum (Plot size: <u>5</u> ft. radius) 1.	% % % % % %			I otal Number of Dominant 1 (B) Species Across All Strata: 100 (A/ Percent of Dominant Species 100 (A/ That Are OBL, FACW, or FAC Prevalence Index worksheet 100 (A/ Total % Cover of: Multiply by: 1 OBL species x 1- 1 (B)
Total Cover:	% % % % %			Percent of Dominant Species That Are OBL, FACW, or FAC Prevalence Index worksheet Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: <u>5</u> ft. radius) 1.	% % % %			Percent of Dominant Species
1.	% % % %			Prevalence Index worksheet Total % Cover of: Multiply by: OBL species x 1-
2.	% % % %			Total % Cover of: Multiply by:
3.	% % %			OBI species x1-
4.	% % %			
5.	% %			FACW species x 2=
Herb Stratum (Plot size: <u>5</u> ft radius) 1. Phalaris arundinacea 8 2. Ranunculus repens 1 3. 1 4. 1 5. 1 6. 1 7. 1	%			FAC species x 3=
Herb Stratum (Plot size: 5 ft radius) 1. Phalaris arundinacea 8 2. Ranunculus repens 1 3.				FACU species x 4=
1. Phalaris arundinacea 6 2. Ranunculus repens 1 3.				UPL species x 5=
2. Ranunculus repens 1 3.	85%	yes	FACW	Column Totals: (A) (
3.	15%	no	FAC	Prevalence Index = B/A=
4. 5	%			Hydrophytic Vegetation Indicators:
5.	%			1 – Rapid Test for Hydrophytic Vegetation
5				2 – Dominance Test is >50%
6. 7	%			\square 3 - Prevalence Index is $\leq 3.0^{1}$
7.	%			4 - Morphological Adaptations ¹ (Provide
<i>I</i>	0/			supporting data in Remarks or on a separate sh
8	<u>%</u>			
	<u>%</u>			Weiland Non-Vascular Plants' Droblomotic Hydrophytic Vasctation ¹ (Eveloin)
I Otal Cover: <u>1</u>	00%			
	0/			Indiantara of hydria agil and watland hydrology
1	 0/			Must be present, upless disturbed or problematic
2	<u> </u>			
Total Cover:	70			Hydrophytic Vegetation Present?
% Bare Ground in Herb Stratum 0%				Yes⊠ No
Remarks: The hydrophytic vegetation criterion is met due t	to 100%	of the vegetati	on within the	e test plot having either OBL, FACW, or FAC indicator
statuses.				

Profile Description: (Describe to the dep	th needed to docu	iment the ind	icator or conf	irm the a	absence of indicators.)	
Dopth Matrix		Podov Foot	Iroc			
(inches) Color (moist) %	Color (moist)	<u> </u>	Tvpe ¹	Loc ²	Texture	Remarks
0-3 10YR3/2 100%		%			loam	
3-16 10YR4/2 90%	10YR4/6	10%	С	PL	loamy clay	
<u> </u>		%				
· ///////////////////////////////		%			· · ·	
<u> </u>		<u> </u>			·	
<u> </u>		%				
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix,	CS=Covered	or Coated Sar	nd Grains	s. ² Location: PL=Pore Lining, N	M=Matrix
Hydric Soil Indicators: (Applicable to all	LRRs, unless othe	erwise noted.)		Indicators for Problematic H	ydric Soils
Histosal (A1)	Sandy Redox	(S5)		l	2 cm Muck (A10)	
	Stripped Matri	x (56)		l ſ	Red Parent Material (TF2) Very Shallow Dark Surface ((TF12)
☐ Black Histic (A3)	Loamy Mucky	Mineral (F1) (except MLRA	.1)	Other (Explain in Remarks)	(11 12)
U Hydrogen Sulfide (A4)	Loamy Gleyed	d Matrix (F2)	•	, .	_ 、 , , , , , , , , , , , , , , , , , ,	
Depleted Below Dark Surface (A11)	Depleted Matr	ix (F3)				
Thick Dark Surface (A12)	Redox Dark S	urface (F6)				
Sandy Mucky Minerals (S1)	Depleted Dark	Surface (F7)		з	³ Indicators of hydrophytic veget	ation and
Sandy Gleyed Matrix (S4)	Redox Depres	sions (F8)			Wetland hydrology must be	present
Restrictive Layer (if present):					· · · · · · · · · · · · · · · · · · ·	•
_						
Гуре:				Hyd	Iric Soil Present?	Vos⊠ No□
Depth (inches):						
Remarks: The hydric soil indicator Depleter	d Matrix (F3) was m	et due to a ma	atrix value of 4	and a ch	roma of 1 with more than 2 per	cent redox
concentrations found in pore linings.						
					Casandary Indicators	
wetiand Hydrology indicators:					(2 or more required)	
Primary Indicators (min. of one required; ch	eck all that apply)					
					Water Stained Leave	es (B9)
Surface Water (A1)	Water-Stained	Leaves (B9)	except MLRA	1, 2, 4A	A, & 4B) (MLRA 1, 2, 4A, and	d 4B)
High Water Table (A2)	Salt Crust (B1)	1)			🗌 Drainage Patterns (B	310)
Saturation (A3)	Aquatic Invert	ebrates (B13)			Dry-Season Water T	able (C2)
Water Marks (B1)	Hydrogen Sulf	fide Odor (C1)			Saturation Visible or	n Aerial Imagery (C9)
Sediment Deposits (B2)	Oxidized Rhiz	ospheres alon	g Living Roots	(C3)	Geomorphic Positior	n (D2)
Drift Deposits (B3)	Presence of R	educed Iron (C4)		Shallow Aquitard (D	3)
Algal Mat or crust (B4)	☐ Recent Iron R	eduction in Til	ed Soils (C6)		FAC-Neutral Test (D	05)
Iron Deposits (B5)	Stunted or Str	essed Plants (D1) (LRR A)		Raised Ant Mounds	(D6) (LRR A)
Surface Soil Cracks (B6)	UOther (Explain	in Remarks)			Frost-Heave Hummo	ocks (D4)
Inundation Visible on Aerial Imagery (B)	()					
Field Observations:						
Surface Water Present? Yes	No 🖂 🛛 De	pth (Inches):				
Water Table Present? Yes	No 🖾 🛛 De	pth (Inches):		Wetla	and Hydrology Present?	
Saturation Present? Yes	No 🛛 🛛 De	pth (Inches):				Yes 🛛 No 🗌
(Includes Capillary fringe)						
Describe Recorded Data (Stream gauge, n	nonitoring well, aeria	al photos, prev	ious inspectio	ns), if ava	allable:	
Remarks: The hydrology indicator, Water Si	tained Seaves (B9)	were found or	the surface o	f the grou	und within the test plot. Addtion	ally, the test plot was
located in a depression (Geomorphic Posit	·· `· `	A DAC N		·\ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	•	· ·
	on D2) and had a p	OSILVE FAC-IN	eutral Test (D5	<i>י</i>).		
	on D2) and had a p	OSILVE FAC-N	eutral Test (D5	<i>)</i>).		
	on D2) and had a p		eutral Test (D5	·).		
	on D2) and had a p		eutrai Test (Do)).		

	City/Co	unty: <u>Chehal</u> i	is/Lewis Sampling Date: 8/27/2020
		State: W	A Sampling Point: TP-6
	Sectio	n, Township	, Range: <u>4, 13N, 2W</u>
	Local relief: <u>Co</u>	onvex	Slope (%):<3%
Lat: 46.645	411	_Long: <u>-122.</u>	9375 Datum: NAD83
lopes		N	WI classification: PEM1/SSC
this time of	year? Yes⊠	No∐ (If i	no, explain Remarks.)
disturbed?	Ar	ea "Normal (
plematic?	(If need	ed, explain a	any answers in Remarks.)
howing s	ampling po	int locatio	ons, transects, important features, etc.
	ls the Sa	moled Area	
	within a	Netland?	
	within a		
ion of the si	te, just west o	f Wetland A.	The vegetation in this test plot consisted of herbaceous
or for vegeta	tion with 100	percent of the	e dominant vegetation being hydrophytic; therefore it does
e site, wetlar	nds and uplan	ds, was vege	etated by reed canarygrass (Phalaris arundinacea).
Absolute	Dominant	Indicator	Dominance Test Worksheet
% Cover	Species?	Status	
%			Number of Dominant Species 1 (A)
%			That Are OBL, FACW, or FAC:
%			1
%			Total Number of Dominant 1 (B)
%			Species Across All Strata:
			Demonst of Deminent Species 100 (A/B)
			Thet Are OBL EACING or EAC
0/			Provelence Index worksheet
			Total % Cover of: Multiply by:
<u> </u>		·	EAC species X 2=
<u> </u>		·	
70			
65%	Ves	FACW	Column Totals: (A) (B)
5%	<u></u>	FAC	Prevalence Index = B/A=
10%		FACU	Hydronbytic Vegetation Indicators:
1070		FACU	\Box 1 – Rapid Test for Hydrophytic Vegetation
10%	no	17100	$\boxed{12}$ 2 – Dominance Test is >50%
10%	no	FACU	\square 3 - Prevalence Index is <3.0 ¹
			4 - Morphological Adaptations ¹ (Provido
%			 supporting data In Remarks or on a separate sheet
%			supporting data In Remarks or on a separate sheet
% 			 Supporting data in Remarks or on a separate sheet) Wetland Non-Vascular Plants¹
% % 100%			 Supporting data In Remarks or on a separate sheet) Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)
% % 100%			 Supporting data In Remarks or on a separate sheet) Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)
% % 100% %			Wetland Non-Vascular Plants ¹ Vegetation ¹ (Explain)
% % 100% %			Wetland Non-Vascular Plants ¹ Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology Must be present, unless disturbed or problematic.
% % 100% % %			Supporting data In Remarks or on a separate sheet) Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology Must be present, unless disturbed or problematic.
% % 100% % %			Wetland Non-Vascular Plants ¹ Vetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) Indicators of hydric soil and wetland hydrology Must be present, unless disturbed or problematic. Hydrophytic Vegetation Present?
% % 100% % %			Wetland Non-Vascular Plants ¹ Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) Indicators of hydric soil and wetland hydrology Must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No
	Lat: 46.645 lopes this time of disturbed? olematic? howing s ion of the si or for vegeta e site, wetlar Absolute % Cover % % % % % % % % % % % % % % % % % % %	Section Local relief: Coll Lat: 46.645411 lopes this time of year? Yes disturbed? Arroblematic? off need howing sampling po lis the Sampling po site, wetlands and upland %	State: W Section, Township Local relief: Convex Lat: 46.645411 Long: -122. lopes No□ (If disturbed? Area "Normal O oblematic? (If needed, explain a howing sampling point locatic lis the Sampled Area within a Wetland? ion of the site, just west of Wetland A. or for vegetation with 100 percent of the site, wetlands and uplands, was vegative, wetlands and uplands, weak vegative, wetlands and uplands, weak vegative, w

					e absence of indicators.)	
Depth Matrix		Redox Featu	res			
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-11 10YR3/3 100%		%			loam	
<u>11-16 10YR4/2 98%</u>	10YR4/6	2%	С	PL	loamy clay	
<u> </u>		%				
		<u> </u>				
		<u> </u>				
· · ·		<u> </u>				
· ·		<u> </u>				
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix.	CS=Covered	or Coated Sar	nd Gra	ins. ² Location: PL=Pore Lining, M=	Matrix
Hydric Soil Indicators: (Applicable to all	LRRs, unless other	wise noted.)			Indicators for Problematic Hyd	ric Soils
Histosal (A1)	Sandy Redox (S5)			2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped Matrix	(S6)			Red Parent Material (TF2)	
	_				Very Shallow Dark Surface (TF	-12)
Black Histic (A3)	Loamy Mucky N	/lineral (F1) (except MLRA	. 1)	Other (Explain in Remarks)	
Hydrogen Sulfide (A4)	Loamy Gleyed	Matrix (F2)				
Depleted Below Dark Surface (A11)	Depleted Matrix	(F3)				
Thick Dark Surface (A12)	🗌 Redox Dark Su	rface (F6)				
Sandy Mucky Minerals (S1)	Depleted Dark	Surface (F7)			³ Indicators of hydrophytic vegetati	on and
Sandy Gleyed Matrix (S4)	Redox Depress	ions (F8)			Wetland hydrology must be pr	esent
Restrictive Layer (if present):	-					
Туре:				н	ydric Soil Present?	
						Yes∐ No⊠
Deptn (Inches):						
Remarks: There was no evidence of hydric	soils within this test	plot.				
HYDROLOGY						
Wetland Hydrology Indicators:					Secondary Indicators	
					(2 or more required)	
Primary Indicators (min. of one required; ch	eck all that apply)					
	_				Water Stained Leaves	(B9)
Surface Water (A1)	U Water-Stained	Leaves (B9) (except MLRA	1, 2 ,	☐ Water Stained Leaves 4A, & 4B) (MLRA 1, 2, 4A, and 4	(B9) B)
☐ Surface Water (A1) ☐ High Water Table (A2)	☐ Water-Stained ☐ Salt Crust (B11	Leaves (B9) ()	except MLRA	A 1, 2,	☐ Water Stained Leaves 4A, & 4B) (MLRA 1, 2, 4A, and 4 ☐ Drainage Patterns (B10)	(B9) B) 0)
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3)	U Water-Stained Salt Crust (B11	Leaves (B9) () brates (B13)	except MLRA	1 , 2,	Water Stained Leaves 4A, & 4B) (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab	(B9) B) 0) ble (C2)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) 	U Water-Stained I Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic	Leaves (B9) () brates (B13) de Odor (C1)	except MLRA	A 1, 2,	Water Stained Leaves 4A, & 4B) (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A	(B9) B) 0) ble (C2) verial Imagery (C9)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) 	 □ Water-Stained I □ Salt Crust (B11 □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizo: 	Leaves (B9) () brates (B13) de Odor (C1) spheres along	except MLRA	1, 2, (C3)	Water Stained Leaves 4A, & 4B) (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1)	(B9) B) 0) ble (C2) terial Imagery (C9) D2)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) 	 □ Water-Stained I □ Salt Crust (B11 □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizos □ Presence of Resource 	Leaves (B9) () brates (B13) de Odor (C1) spheres alonç duced Iron (C	except MLRA J Living Roots 34)	1, 2, (C3)	Water Stained Leaves 4A, & 4B (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3)	(B9) B) 0) ble (C2) verial Imagery (C9) D2)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) 	 □ Water-Stained I □ Salt Crust (B11 □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizos □ Presence of Re □ Recent Iron Re 	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille	except MLRA g Living Roots (4) ed Soils (C6)	1, 2, (C3)	Water Stained Leaves 4A, & 4B Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1 Shallow Aquitard (D3) FAC-Neutral Test (D5)	(B9) 9 B) 0) ble (C2) verial Imagery (C9) D2)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) 	 □ Water-Stained I □ Salt Crust (B11 □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizos □ Presence of Re □ Recent Iron Res □ Stunted or Stress 	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I	except MLRA g Living Roots 34) ed Soils (C6) D1) (LRR A)	1, 2, (C3)	Water Stained Leaves 4A, & 4B (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	(B9) (B) 0) ble (C2) verial Imagery (C9) D2) 6) (LRR A)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) 	 □ Water-Stained I □ Salt Crust (B11 □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizo: □ Presence of Re □ Recent Iron Re □ Stunted or Street □ Other (Explain in 	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks)	except MLRA g Living Roots (4) ed Soils (C6) (1) (LRR A)	1, 2, (C3)	Water Stained Leaves (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) B) 0) ble (C2) verial Imagery (C9) D2) 6) (LRR A) ks (D4)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) 	 □ Water-Stained I □ Salt Crust (B11 □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizo: □ Presence of Re □ Recent Iron Re □ Stunted or Stree □ Other (Explain in T) 	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks)	except MLRA g Living Roots (4) ed Soils (C6) D1) (LRR A)	(C3)	Water Stained Leaves 4A, & 4B Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (B) 0) ble (C2) terial Imagery (C9) D2) (LRR A) (s (D4)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 	 Water-Stained I Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Re Stunted or Stree Other (Explain in T) 	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks)	except MLRA g Living Roots (4) ed Soils (C6) (LRR A)	(C3)	Water Stained Leaves (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (B) 0) ble (C2) verial Imagery (C9) D2) 6) (LRR A) <s (d4)<="" td=""></s>
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 	 Water-Stained I Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Res Stunted or Stres Other (Explain in free) 	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks)	except MLRA g Living Roots (4) ed Soils (C6) D1) (LRR A)	(C3)	Water Stained Leaves 4A, & 4B Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (B) o) ble (C2) verial Imagery (C9) D2) 6) (LRR A) ks (D4)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations:	Water-Stained I Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stree Other (Explain in Dep	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks) th (Inches):	except MLRA g Living Roots (4) ed Soils (C6) D1) (LRR A)	(C3)	Water Stained Leaves 4A, & 4B) (MLRA 1, 2, 4A, and 4) □ Drainage Patterns (B10) □ Dry-Season Water Table □ Saturation Visible on A □ Geomorphic Position (1) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D □ Frost-Heave Hummoch	(B9) (B) 0) ble (C2) verial Imagery (C9) D2) 6) (LRR A) (s (D4)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations: Surface Water Present? Yes Water Table Present? Yes	Water-Stained I Salt Crust (B11 Aquatic Invertee Hydrogen Sulfice Oxidized Rhizoe Recent Iron Rec Stunted or Stree Other (Explain in No Dep No Dep	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks) th (Inches): th (Inches):	except MLRA g Living Roots (4) ed Soils (C6) D1) (LRR A)	(C3)	Water Stained Leaves 4A, & 4B) (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock etland Hydrology Present?	(B9) (B) 0) ble (C2) erial Imagery (C9) D2) 6) (LRR A) (s (D4)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations: Surface Water Present? Yes Saturation Present? Yes (Include Capillant for Each of the complete test of tes	□ Water-Stained I □ Salt Crust (B11) □ Aquatic Invertel □ Hydrogen Sulfid □ Oxidized Rhizos □ Presence of Re □ Recent Iron Re □ Stunted or Strest □ Other (Explain in Strest) No ⊠ Dep No ⊠ Dep No ⊠ Dep No ⊠ Dep	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks) th (Inches): th (Inches): th (Inches):	except MLRA g Living Roots (24) ed Soils (C6) (CRR A)	(C3)	Water Stained Leaves 4A, & 4B) (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock etland Hydrology Present?	(B9) (B) 0) ble (C2) terial Imagery (C9) D2) 6) (LRR A) (s (D4) Yes □ No ⊠
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations: Surface Water Present? Yes Saturation Present? Yes Saturation Present? Yes (Includes Capillary fringe) Surface Present Present Stream acures of Stream	□ Water-Stained I □ Salt Crust (B11 □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizo: □ Presence of Re □ Recent Iron Re: □ Stunted or Street □ Other (Explain in ref) No ⊠ Dep No ⊠ Dep No ⊠ Dep No ⊠ Dep	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks) th (Inches): th (Inches): th (Inches):	except MLRA g Living Roots (24) ed Soils (C6) (21) (LRR A)	(C3)	Water Stained Leaves (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummoce Hand Hydrology Present?	(B9) (B) 0) ble (C2) 4erial Imagery (C9) D2) 16) (LRR A) Ks (D4) Yes □ No ⊠
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, m	□ Water-Stained I □ Salt Crust (B11 □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizo: □ Presence of Re □ Recent Iron Re □ Stunted or Stre: □ Other (Explain in No ⊠ Dep	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks) th (Inches): th (Inches): th (Inches): photos, previ	except MLRA g Living Roots (4) ed Soils (C6) D1) (LRR A)	(C3)	Water Stained Leaves (MLRA 1, 2, 4A, and 4 Control Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummoce Hand Hydrology Present? Etland Hydrology Present Plant P	(B9) (B) (D) (C2) (C9) (D2) (LRR A) (S (D4) Yes □ No ⊠
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, mainted the second secon	□ Water-Stained I □ Salt Crust (B11 □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizo: □ Presence of Re □ Recent Iron Re □ Stunted or Stree □ Other (Explain in □) No ⊠ Dep	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks) th (Inches): th (Inches): th (Inches): photos, previ	except MLRA g Living Roots (4) ed Soils (C6) D1) (LRR A)	(C3)	Water Stained Leaves (MLRA 1, 2, 4A, and 4 Control Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock etland Hydrology Present? available:	(B9) (B) 0) ble (C2) verial Imagery (C9) D2) 6) (LRR A) (S (D4) Yes □ No ⊠
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, m Remarks:There was no evidence of hydrology	□ Water-Stained I □ Salt Crust (B11 □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizos □ Presence of Re □ Recent Iron Re □ Stunted or Strest □ Other (Explain in □) No ⊠ Dep No ⊠ Dep No ⊠ Dep onitoring well, aerial	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks) th (Inches): th (Inches): th (Inches): photos, previ	except MLRA g Living Roots (4) ed Soils (C6) D1) (LRR A)	(C3)	Water Stained Leaves (MLRA 1, 2, 4A, and 4 Control Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (B) 0) 0) 0) 0) (C2) 0) (C9) 02) 0) (C9) 02) 0) (C9) 02) 0) (C9) 02) 0) (C9) 02) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, m Remarks:There was no evidence of hydrology	□ Water-Stained I □ Salt Crust (B11) □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizos □ Presence of Re □ Recent Iron Re □ Stunted or Strest □ Other (Explain in No ☑ Dep No ☑ Dep No ☑ Dep onitoring well, aerial	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks) th (Inches): th (Inches): th (Inches): photos, previ	except MLRA g Living Roots (4) ed Soils (C6) D1) (LRR A)	(C3)	Water Stained Leaves (MLRA 1, 2, 4A, and 4 Control Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (B) 0) 0) 0) 0) (C2) 0) (D2) 0) (LRR A) (S (D4) Yes □ No ⊠
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, m Remarks:There was no evidence of hydrology	□ Water-Stained I □ Salt Crust (B11) □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizo: □ Presence of Re □ Recent Iron Re □ Stunted or Strest □ Other (Explain in n) Dep No Dep No Dep nonitoring well, aerial ogy within this test play	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks) th (Inches): th (Inches): th (Inches): photos, previ	except MLRA g Living Roots (4) ed Soils (C6) D1) (LRR A)	(C3)	Water Stained Leaves (MLRA 1, 2, 4A, and 4 Control Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (B) 0) ble (C2) .erial Imagery (C9) D2) 6) (LRR A) (s (D4) Yes □ No ⊠
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, m Remarks:There was no evidence of hydrology	□ Water-Stained I □ Salt Crust (B11) □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizo: □ Presence of Re □ Recent Iron Re □ Stunted or Strest □ Other (Explain in No ⊠ Dep No ⊠ Dep No ⊠ Dep No ⊠ Dep onitoring well, aerial	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tilk ssed Plants (I n Remarks) th (Inches): th (Inches): th (Inches): photos, previ	except MLRA g Living Roots (24) ed Soils (C6) (21) (LRR A)	(C3) W (Water Stained Leaves (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (B) (D) (C2) (D2) (C9) (D2) (C9) (
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Field Observations: Surface Water Present? Yes Saturation Present? Yes Saturation Present? Yes (Includes Capillary fringe) Describe Recorded Data (Stream gauge, m Remarks:There was no evidence of hydrology	□ Water-Stained I □ Salt Crust (B11) □ Aquatic Invertel □ Hydrogen Sulfic □ Oxidized Rhizo: □ Presence of Re □ Recent Iron Re □ Stunted or Strest □ Other (Explain in No ⊠ Dep No ⊠ Dep No ⊠ Dep onitoring well, aerial	Leaves (B9) () brates (B13) de Odor (C1) spheres along duced Iron (C duction in Tille ssed Plants (I n Remarks) th (Inches): th (Inches): th (Inches): photos, previ	except MLRA g Living Roots (24) ed Soils (C6) (21) (LRR A)	(C3)	Water Stained Leaves (MLRA 1, 2, 4A, and 4 Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (1 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummoch	(B9) (B) (D) (C2) (D2) (C9) (D2) (C9) (

State: WA Township, Ranvex ong: <u>-122.93732</u> NWI cla No (If no, ex "Normal Circun a, explain any ar t locations, t bled Area etland? Wetland A. The rcent of the dom , was vegetated Indicator Status Nur Tha Tota Status Per Tha Pre OBI FAC	Sampling Point: TP-7 nge: 4, 13N, 2W Slope (%): <3% 322 Datum: NAD83 classification: PEM1/SSC explain Remarks.) umstances" present? Yes ⊠ No□ answers in Remarks.) transects, important features, etc. Yes□ No⊠ ne vegetation in this test plot consisted of herbaceous minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea). ominance Test Worksheet umber of Dominant Species nat Are OBL, FACW, or FAC: otal Number of Dominant Species notat Are OBL, FACW, or FAC ercent of Dominant Species nat Are OBL, FACW, or FAC ercent of Dominant Species nat Are OBL, FACW, or FAC ercent of Dominant Species nat Are OBL, FACW, or FAC ercent of Dominant Species nat Are OBL, FACW, or FAC ercent of Dominant Species nat Are OBL, FACW, or FAC ercent of Dominant Species nat Are OBL, FACW, or FAC ercel Index worksheet Total % Cover of: Multiply by: BL speci
Township, Ran vex ong:-122.93732 NWI cla No] (If no, ex "Normal Circun a, explain any ar t locations, t bled Area etland? Wetland A. The rcent of the dom , was vegetated Indicator Dou Status Nur Tha Per Tha Pre OBI FAC	Image: 4, 13N, 2W Slope (%):<3%
vex .ong:-122.93732 NWI cla No] (If no, ex "Normal Circun a, explain any ar t locations, t oled Area etland? Wetland A. The rcent of the dom , was vegetated Indicator Dou Status Nur Tha Per Tha Pre OBI FAC	Slope (%):<3%
Indicator Status Nur Tha Spectrum The Spectr	322 Datum: NAD83 classification: PEM1/SSC explain Remarks.) umstances" present? Yes⊠ No□ answers in Remarks.) transects, important features, etc. Yes□ No⊠ ne vegetation in this test plot consisted of herbaceous minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea). ominance Test Worksheet umber of Dominant Species nat Are OBL, FACW, or FAC: otal Number of Dominant becies Across All Strata: 100 Are OBL, FACW, or FAC ercent of Dominant Species 100 (A/B) mat Are OBL, FACW, or FAC ercent of Dominant Species 100 (A/B) mat Are OBL, FACW, or FAC evalence Index worksheet Total % Cover of: Multiply by: BL species
NWI cla No (If no, ex "Normal Circund, explain any art locations, to the dom, to the dom? Wetland A. The recent of the dom, was vegetated Indicator Doing Status Nur That Total Spec Per That Pre OBI FAC FAC FAC	classification: PEM1/SSC explain Remarks.) umstances" present? Yes⊠ No□ answers in Remarks.) transects, important features, etc. Yes□ No⊠ ne vegetation in this test plot consisted of herbaceous minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea). ominance Test Worksheet umber of Dominant Species nat Are OBL, FACW, or FAC: otal Number of Dominant percent of Dominant Species nat Are OBL, FACW, or FAC: mat Are OBL, FAC
NoL (If no, ex "Normal Circund, explain any article control circums, topled Areaetland? Wetland A. The recent of the dom, was vegetated Indicator Doing Status Nur That Total Spectrum Per That Pre OBI FAC FAC FAC	explain Remarks.) imstances" present? Yes⊠ No□ answers in Remarks.) transects, important features, etc. Yes□ No⊠ The vegetation in this test plot consisted of herbaceous minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea). ominance Test Worksheet umber of Dominant Species nat Are OBL, FACW, or FAC: otal Number of Dominant percent of Dominant Species 100 (A) ercent of Dominant Species 100 (A/B) mat Are OBL, FACW, or FAC ercent of Dominant Species 100 (A/B) mat Are OBL, FACW, or FAC
"Normal Circund, explain any article content of the dom states Indicator Doily content of the dom states Indicat	Imstances" present? Yes⊠ No∐ answers in Remarks.) transects, important features, etc. Yes□ No⊠ The vegetation in this test plot consisted of herbaceous minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea). ominance Test Worksheet umber of Dominant Species nat Are OBL, FACW, or FAC: otal Number of Dominant percent of Dominant Species 100 (A) ercent of Dominant Species 100 (A/B) mat Are OBL, FACW, or FAC ercent of Dominant Species 100 (A/B) mat Are OBL, FACW, or FAC
Indicator Status Nur Tha Spectrum Content of the dom of	Yes No⊠ ne vegetation in this test plot consisted of herbaceous minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea). ominance Test Worksheet umber of Dominant Species nat Are OBL, FACW, or FAC: otal Number of Dominant Species Across All Strata: 100 (A/B) ercent of Dominant Species nat Are OBL, FACW, or FAC ercent of Dominant Species nat Are OBL, FACW, or FAC revalence Index worksheet Total % Cover of: Multiply by: BL species x 1=
Indicator Status Nur Tha Spee Per Tha Pre OB	Yes No⊠ ne vegetation in this test plot consisted of herbaceous minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea). ominance Test Worksheet umber of Dominant Species nat Are OBL, FACW, or FAC: otal Number of Dominant Species Across All Strata: 100 (A/B) ercent of Dominant Species nat Are OBL, FACW, or FAC revalence Index worksheet Total % Cover of: Multiply by: Stal Species x 1=
Deck Area ettland? Wetland A. The rcent of the dom rcent of the dom , was vegetated Indicator Don Status Nur That Per That Pre OB FAC FAC	Yes No ne vegetation in this test plot consisted of herbaceous minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea). ominance Test Worksheet umber of Dominant Species hat Are OBL, FACW, or FAC: otal Number of Dominant becies Across All Strata: hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC revalence Index worksheet Total % Cover of: Multiply by: BL species x 1=
Watland A. The Wetland A. The rcent of the dom , was vegetated Indicator Status Nur That Total Special Per That Pre OB FAC FAC	res No ne vegetation in this test plot consisted of herbaceous minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea). ominance Test Worksheet umber of Dominant Species hat Are OBL, FACW, or FAC: otal Number of Dominant beccies Across All Strata: hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC revalence Index worksheet Total % Cover of: Multiply by: BL species x 1=
Wetland A. The rcent of the dom, rcent of the dom, was vegetated Indicator Doi Status Nur Tota Tota Spectrum Per Tha Pre OB FAC FAC FAC	ne vegetation in this test plot consisted of herbaceous minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea). ominance Test Worksheet umber of Dominant Species hat Are OBL, FACW, or FAC: otal Number of Dominant Species Across All Strata: ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC evalence Index worksheet Total % Cover of: Multiply by: BL species
Indicator Status Status Tot: Spe Per Tha Pre OB FAC	minant vegetation being hydrophytic; therefore it does d by reed canarygrass (Phalaris arundinacea).
Indicator Status Nur Tha Tota Spe Per Tha Pre Game FAC	ominance Test Worksheet umber of Dominant Species nat Are OBL, FACW, or FAC: otal Number of Dominant becies Across All Strata: 100 (A) ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species 100 (A/B) ercent of Dominant Species Total % Cover of: Multiply by: BL species x 1=
Indicator Status Nur Tha Tota Spe Per Tha Pre Galant FAC	ominance Test Worksheet umber of Dominant Species hat Are OBL, FACW, or FAC: otal Number of Dominant becies Across All Strata: ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC ercent of Dominant Species hat Are OBL, FACW, or FAC revalence Index worksheet Total % Cover of: Multiply by: x 1=
Nut Tota Tota Spe Per Tha OBI FAC FAC	umber of Dominant Species 1 (A) nat Are OBL, FACW, or FAC: 1 (B) otal Number of Dominant 100 (A/B) ercent of Dominant Species 100 (A/B) revalence Index worksheet Multiply by: x 1=
Tha	hat Are OBL, FACW, or FAC:
Tota Spe Per Tha Pre OB FAC	bital Number of Dominant 1 (B) beccies Across All Strata: 100 (A/B) bercent of Dominant Species 100 (A/B) betat Are OBL, FACW, or FAC 100 (A/B) revalence Index worksheet Multiply by: 1 Total % Cover of: Multiply by: x 1=
Tota Spe Tha Per Tha Pre OB FAC FAC	tail Number of Dominant 1 (B) becies Across All Strata: 100 (A/B) bercent of Dominant Species 100 (A/B) beta Are OBL, FACW, or FAC 100 (A/B) revalence Index worksheet Multiply by: 1 Total % Cover of: Multiply by: x 1=
Per Tha Pre OB FAC FAC	becies Across All Strata: 100 (A/B) bercent of Dominant Species 100 (A/B) bat Are OBL, FACW, or FAC 100 (A/B) revalence Index worksheet 100 (A/B) Total % Cover of: Multiply by: 100 BL species x 1= 100 (A/B)
Per Tha Pre OB FAC FAC	at Are OBL, FACW, or FAC 100 (A/B) revalence Index worksheet Multiply by: Total % Cover of: Multiply by: BL species x 1=
OB FAC	aat Are OBL, FACW, or FAC evalence Index worksheet Total % Cover of: Multiply by: BL species x 1=
OB FAC	Total % Cover of: Multiply by: BL species x 1=
OB FAC	Total % Cover of: Multiply by: BL species x 1=
OB FAC	BL species $x 1=$
FAC FAC	
FAC	ACW species x 2=
	AC species x 3=
FAC	ACU species x 4=
UPI	PL species x 5=
FACW Col	olumn Totals: (A) (B)
FAC	Prevalence Index = B/A=
FACU Hyd	drophytic Vegetation Indicators:
FACU	1 – Rapid Test for Hydrophytic Vegetation
	\times 2 – Dominance Test is >50%
FACU	_ 3 - Prevalence Index Is ≤3.0 ⁴
	4 - Molphological Adaptations* (Provide
L	
——————————————————————————————————————	Wetland Non-Vascular Plants ¹
——————————————————————————————————————	Problematic Hydrophytic Vegetation ¹ (Explain)
¹ Inc	ndicators of hydric soil and wetland hydrology
Mus	ust be present, unless disturbed or problematic.
Hydr	drophytic Vegetation Present?
vogotation withi	hin the test plot having either OPL EACW or EAC
vegetation within	in the test plot having either OBL, FACW, or FAC
	FACU FACU FACU FACU 11r Mi Vegetation with

Profile Description: (Describe to the	depth needed to docu	ument the indicator or	confirm	the absence of indicators.)	
Depth Matrix		Redox Features			
(inches) Color (moist) %	Color (moist)	% Type ¹	Lo	c ² Texture	Remarks
<u> 0-5 </u>		%		gravelly loam	See Remarks Below
		%			
<u>~~~</u> <u>~~~</u>		%		· · · · · · · · · · · · · · · · · · ·	
<u>%</u>		%			
<u>%</u>		%			
%		%			
%		%		· · · · · · · · · · · · · · · · · · ·	
Hydric Soil Indicators: (Applicable to Histosal (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4)	 A. RM=Reduced Matrix, all LRRs, unless other and the stripped stripped Matrix Stripped Matrix Loamy Mucky Loamy Gleyed 	<u>, CS=Covered of Coatec</u> erwise noted.) (S5) ix (S6) ^r Mineral (F1) (except M d Matrix (F2)	LRA 1)	Indicators for Problems Description: PL=Pore Life Indicators for Problems 2 cm Muck (A10) Red Parent Material (T Very Shallow Dark Sur Other (Explain in Remain)	nng, M=Matrix atic Hydric Soils F2) face (TF12) arks)
Depleted Below Dark Surface (A11)	Depleted Matr	rix (F3)			
Thick Dark Surface (A12)	🗌 Redox Dark S	Surface (F6)			
Sandy Mucky Minerals (S1)	Depleted Dark	< Surface (F7)		³ Indicators of hydrophytic	vegetation and
Sandy Gleyed Matrix (S4)	Redox Depres	ssions (F8)		Wetland hydrology mu	ist be present
Restrictive Layer (if present):					
Type: <u>Hard pan</u>				Hydric Soil Present?	Yes⊡ No⊠
Depth (inches): <u>5</u>					
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indica	tors
Deine and Indiantena (asia of an a service				(2 or more require	ed)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager	Uneck an triat apply) Uneck an triat apply Uneck an triat apply Uneck an triat apply) Uneck an triat apply Uneck an tr	d Leaves (B9) (except N 1) ebrates (B13) fide Odor (C1) cospheres along Living R Reduced Iron (C4) reduction in Tilled Soils (ressed Plants (D1) (LRR in Remarks)	ILRA 1, 2 Roots (C3 (C6) (A)	Water Stained (MLRA 1, 2, 4. (MLRA 1, 2, 4.) Drainage Patte Dry-Season W Saturation Visi Geomorphic P Shallow Aquita FAC-Neutral T Raised Ant Mc Frost-Heave H	Leaves (B9) A, and 4B) erns (B10) dater Table (C2) ble on Aerial Imagery (C9) osition (D2) ard (D3) dest (D5) bunds (D6) (LRR A) hummocks (D4)
Field Observations: Surface Water Present? Yes [] Water Table Present? Yes [] Saturation Present? Yes [] (Includes Capillary fringe) Describe Present (Stream gaue)	No ⊠ De No ⊠ De No ⊠ De	epth (Inches): epth (Inches): epth (Inches):		Wetland Hydrology Present?	Yes 🗌 No 🖂
Describe Necolded Data (Stream gaug	e, morntoring well, aeria	מי אווטנטס, אופאוטעס וווטאנ	5010118),	II availadit.	
Remarks:There was no evidence of hy	drology within this test p	olot.			

Project/Site: HJ Delineation		City/Co	ounty: Chehal	is/Lewis Samp	ling Date: 8/27/20	020
Applicant/Owner: Herb Johnson			State: W	A 5	Sampling Point:	FP-8
Investigator(s): Wills, KT		Sectio	on, Township	, Range: <u>4, 13N, 2W</u>		
Landform (hillslope, terrace, etc.): Terrace		Local relief: C	onvex		Sl	ope (%): <u><3%</u>
Subregion (LRR): A2	Lat: 46.644	369	_ Long: <u>-122.</u>	936464	Datum: NAD8	3
Soil Map Unit Name: Lacamas silt loam, 0 to 3 percent	slopes		N	IWI classification: PEM1/S	SSC	
Are climatic / hydrologic conditions on the site typical for	or this time of	year? Yes⊠	No∐ (If	no, explain Remarks.)		
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Ar	ea "Normal (Circumstances" present?		
Are Vegetation, Soil, or Hydrology naturally p	roblematic?	(If need	led, explain a	any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing s	ampling po	oint locatio	ons, transects, impo	rtant features	s, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soils Present? Yes No Write bills Description No		Is the Sa within a	mpled Area Wetland?	Yes No	\boxtimes	
Wetland Hydrology Present? Yes No 2	Nrn portion of t	the site equite	aget of Watle	and A. The vegetation in t	his tost plat asp	vieted of
herbaceous species only. This test plot met only one w	etland indicat	tor for vegetati	ion with 100	nu A. The vegetation in t	rus lest plut cons	bydrophytic:
therefore it does not meet the criteria of being wetland	The maiority	of the site we	etlands and u	inlands was vegetated by	v reed canarvora	nyulophytic, ass (Phalaris
arundinacea).		01 110 010, 110			,	
· · · · · · · · · · · · · · · · · · ·						
VEGETATION (Use scientific names)						
	Absolute	Dominant	Indicator	Dominance Test Wor	ksheet	
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status			
<u>1.</u> ,	%			Number of Dominant S	species	2 (A)
2.	%			That Are OBL, FACW,	or FAC:	、 ,
3.	%		·	1		
4.	%			Total Number of Domin	hant	2 (B)
Total Cover:	%			Species Across All Stra	ata:	
				Percent of Dominant S	necies —	100 (A/B)
Sapling/Shrub Stratum (Plot size: 5 ft_radius)				That Are OBL FACW	or FAC	
1.	%			Prevalence Index wo	rksheet	
2	<u> </u>			Total % Cover of	f: Mi	ultiply by:
3.	%			OBL species	<u>x 1=</u>	<u></u>
4.	%			FACW species	x 2=	
5.	%			FAC species	x 3=	
Total Cover:	%			FACU species	x 4=	
<u>Herb Stratum</u> (Plot size: <u>5</u> ft radius)				UPL species	x 5=	
1. Phalaris arundinacea	50%	yes	FACW	Column Totals:	(A)	(B)
2. Dipsacus fullonum	25%	yes	FAC	Prevalence	e Index = B/A=_	
3. Daucus carota	15%	no	FACU	Hydrophytic Vegetati	on Indicators:	
4. Hypochaeris radicata	5%	no	FACU	1 – Rapid Test for	or Hydrophytic Vo	egetation
				2 – Dominance 1	est is >50%	
5. <u>I ritolium pratense</u>	5%	no	FACU	3 - Prevalence Ir	idex is ≤3.0'	
6.	%			4 - Morphologica	Adaptations' (F	
7	0/				In Remarks or or	i a separate sneet)
۱	<u> </u>				cular Plante ¹	
oTotal Cover:	100%				ronhytic Vegetat	ion ¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft radius)	10070				iopilylio vogolal	
<u>,</u> (%			¹ Indicators of hvdric so	il and wetland hy	/drologv
2.	%			Must be present, unles	s disturbed or pr	oblematic.
Total Cover:	%				•	
				Hydrophytic Vegetatio	n Present?	
% Bare Ground in Herb Stratum 0%						Yes⊠ No⊡
Remarks: The hydrophytic vegetation criterion is met	due to 100%	of the domina	nt vegetation	within the test plot havin	g either OBL, FA	ACW, or FAC
indicator statuses.			3			. –

Profile Description: (Describe to the dep	th needed to docu	ment the indicator or con	firm th	e absence of indicators.)	
Depth Matrix		Redox Features			
(inches) Color (moist) %	Color (moist)	% Type ¹	Loc ²	Texture	Remarks
<u>0-7</u> <u>10YR3/3</u> <u>100%</u>		<u>%</u>		gravelly loam	See Remarks Below
<u> </u>		<u> </u>			
<u> </u>		<u> </u>			
<u> </u>		<u>%</u>			
<u> </u>		%			
		%			
¹ Type: C=Concentration, D=Depletion, RI	M=Reduced Matrix,	CS=Covered or Coated Sa	ind Gra	ins. ² Location: PL=Pore Lini	ng, M=Matrix
Hydric Soil Indicators: (Applicable to all	LRRs, unless othe	erwise noted.)		Indicators for Problemat	ic Hydric Soils
\square Histic Enipedon (A2)		(33) x (S6)		Z CITI MUCK (ATU) Red Parent Material (TE	2)
		x (00)		Verv Shallow Dark Surfa	2) ace (TF12)
Black Histic (A3)	Loamy Mucky	Mineral (F1) (except MLRA	A 1)	Other (Explain in Remar	rks)
Hydrogen Sulfide (A4)	Loamy Gleyed	Matrix (F2)			
Depleted Below Dark Surface (A11)	Depleted Matri	ix (F3)			
Thick Dark Surface (A12)	Redox Dark Su	urface (F6)			
Sandy Mucky Minerals (S1)	Depleted Dark	Surface (F7)		³ Indicators of hydrophytic v	egetation and
Sandy Gleyed Matrix (S4)	Redox Depres	sions (F8)		Wetland hydrology mus	st be present
Restrictive Layer (if present):					
Transitional ass				udria Cail Dreasert?	
Type: Hard pan			н	yaric Soli Present?	
Depth (inches):7					
Remarks: The soil consisted of historic com	pacted fill material	and gravel. There was no e	vidence	e of hydric soils within this tes	t plot.
Wotland Hydrology Indicators:				Secondary Indicate	
Wettand Hydrology indicators.				(2 or more required))
Primary Indicators (min. of one required; ch	eck all that apply)			<u> </u>	/
				Water Stained L	eaves (B9)
Surface Water (A1)	Water-Stained	Leaves (B9) (except MLR	A 1, 2,	4A, & 4B) (MLRA 1, 2, 4A	, and 4B)
High Water Table (A2)	Salt Crust (B1	1)		Drainage Patter	ns (B10)
Saturation (A3)	Aquatic Inverte	ebrates (B13)		Dry-Season Wa	ter Table (C2)
U Water Marks (B1)	Hydrogen Sulf	ide Odor (C1)	(0.0)	Saturation Visib	le on Aerial Imagery (C9)
		ospheres along Living Roots	s (C3)		sition (D2)
	Presence of R	educed Iron (C4)			d (D3)
Algal Mat or crust (B4)		eduction in Tilled Soils (C6)			ST (D5)
I Iron Deposits (B5)		in Demorie			inds (D6) (LRR A)
Surface Soll Cracks (B6)		in Remarks)		Frost-Heave Hu	mmocks (D4)
)				
Field Observations:					
Surface Water Present? Yes	No 🖂 🛛 Dej	pth (Inches):			
Water Table Present? Yes	No 🛛 🛛 Dej	pth (Inches):	We	etland Hydrology Present?	
Saturation Present? Yes	No 🛛 🛛 Dej	pth (Inches):			Yes 🗌 No 🖂
(Includes Capillary fringe)		Infrates and the first of the		e vellek le v	
Describe Recorded Data (Stream gauge, m	onitoring well, aeria	ai priotos, previous inspectio	ons), if a	availadie:	
Remarks: There was no evidence of hydrold	gy within this test p	lot.			· · · · ·

APPENDIX B: WETLAND RATING FORM

RATING SUMMARY – Western Washington

Name of wetland (or ID #):Wetland ADate of site visit:August 27, 2020Rated byKT WillsTrained by Ecology?YesDate of training9/2016HGM Class used for ratingDepressionalWetland has multiple HGM classes?XYN

NOTE: Form is not complete without the figures requested (figures can be combined). Source of base aerial photo/map <u>Google Earth</u>

OVERALL WETLAND CATEGORY IV (based on functions <u>X</u> or special characteristics)

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 – 27

Category II – Total score = 20 – 22

Category III – Total score = 16 – 19

X Category IV – Total score = 9 – 15

FUNCTION	l Wa	mprov ater Qu	ing uality	Н	ydrolo	ogic		Habita	t	
					Circle	the ap	prop	riate rai	tings	
Site Potential	Н	Μ	\bigcirc	Н	M	L	Н	м (D	
Landscape Potential	Н	M	L	Н	$\overline{\mathbb{M}}$	L	Н	м (D	
Value	(\mathbb{H})	M	L	Н	M	\bigcirc	Н	M	L	TOTAL
Score Based on		<u>ر</u>			-			Λ		15
Ratings		0			5			4		12

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

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	N/A

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	5
Hydroperiods	D 1.4, H 1.2	5
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	5
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	5
Map of the contributing basin	D 4.3, D 5.3	6
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	c
polygons for accessible habitat and undisturbed habitat		D
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	7
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	7

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	Н 1.1, Н 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	Н 2.1, Н 2.2, Н 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	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 area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	Н 2.1, Н 2.2, Н 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	Н 1.1, Н 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	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	Н 2.1, Н 2.2, Н 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

HGM Classification of Wetlands in Western Washington

For questions 1-7, 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 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?



YES – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine) *If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands. If it is Saltwater Tidal Fringe it is an* **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 YES – The wetland class is **Flats** *If your wetland can be classified as a Flats wetland, use the form for* **Depressional** *wetlands.*

Does the entire wetland unit meet all of the following criteria?
 __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 __At least 30% of the open water area is deeper than 6.6 ft (2 m).



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

4. 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**

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 ft deep).

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - _The overbank flooding occurs at least once every 2 years.

Wetland name or number <u>A</u>

NO – **t**o to 6

YES – The wetland class is **Riverine**

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

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

NO – go to 7

YES — The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8

YES – The wetland class is Depressional

8. 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 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

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

HGM classes within the wetland unit	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

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.

DEPRESSIONAL AND FLATS WETLANDS	
Water Quality Functions - Indicators that the site functions to improve water quality	
D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	3
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0	0
D 1.3. <u>Characteristics and distribution of persistent plants</u> (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed, plants > ½ of area Wetland has persistent, ungrazed plants > ¹ / ₁₀ of area Wetland has persistent, ungrazed plants < ¹ / ₁₀ of area points = 0	0
D 1.4. Characteristics of seasonal ponding or inundation: This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is < ½ total area of wetland	2
Total for D 1Add the points in the boxes above	5
Rating of Site Potential If score is: 12-16 = H 6-11 = M X 0-5 = L Record the rating on the first point.	age
D 2.0. Does the landscape have the potential to support the water guality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source Yes = 1 No = 0	0
Total for D 2Add the points in the boxes above	1
Rating of Landscape Potential If score is: 3 or 4 = H X 1 or 2 = M 0 = L Record the rating on the fine	rst page
D 3.0. Is the water quality improvement provided by the site valuable to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the $303(d)$ list? (es = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which the unit is found)?	2
Total for D 3 Add the points in the boxes above	3

DEPRESSIONAL AND FLATS WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce floodin	g and stream degradati	on
D 4.0. Does the site have the potential to reduce flooding and erosion?		
D 4.1. <u>Characteristics of surface water outflows from the wetland</u> : Wetland is a depression or flat depression with no surface water leaving it (no outlet) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanent Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently	points = 4 tly flowing outlet points = 2 g ditch points = 1 flowing points = 0	4
 D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet The wetland is a "headwater" wetland Wetland is flat but has small depressions on the surface that trap water Marks of ponding less than 0.5 ft (6 in) 	f the outlet. For wetlands points = 7 points = 5 points = 3 points = 3 points = 1 points = 0	0
 D 4.3. <u>Contribution of the wetland to storage in the watershed</u>: <i>Estimate the ratio of the area of contributing surface water to the wetland to the area of the wetland unit itself.</i> The area of the basin is less than 10 times the area of the unit The area of the basin is 10 to 100 times the area of the unit The area of the basin is more than 100 times the area of the unit 	f upstream basin points = 5 points = 3 points = 0 points = 5	3
Total for D 4 Add the poin	ts in the boxes above	7
Rating of Site Potential if score is: $12-16 = H \times 6-11 = M = 0-5 = L$	Record the rating on the	Jirst pag
D 5.0. Does the landscape have the potential to support hydrologic functions of the sit	te?	
D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 (NO = 0	0
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff	f? (es = 1) No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human >1 residence/ac, urban, commercial, agriculture, etc.)?	hand uses (residential at e^{1} No = 0	1
Total for D 5Add the point	ts in the boxes above	2
Rating of Landscape Potential If score is: 3 = H X 1 or 2 = M 0 = L	Record the rating on the j	first pag
D 6.0. Are the hydrologic functions provided by the site valuable to society?		
 D 6.1. <u>The unit is in a landscape that has flooding problems</u>. <i>Choose the description that best m the wetland unit being rated. Do not add points</i>. <u><i>Choose the highest score if more than of</i> <u>The wetland captures surface water that would otherwise flow down-gradient into areas damaged human or natural resources (e.g., houses or salmon redds):</u></u> Flooding occurs in a sub-basin that is immediately down-gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. Flooding from groundwater is an issue in the sub-basin. The existing or potential outflow from the wetland is so constrained by human or natural water stored by the wetland cannot reach areas that flood. Explain why	atches conditions around one condition is met. s where flooding has points = 2 points = 1 points = 1 I conditions that the points = 0	0
There are no problems with flooding downstream of the wetland.	points = 0	
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a region	onal flood control plan? Yes = 2 $\sqrt{No} = 0$	0
Total for D 6 Add the poin	ts in the boxes above	0
Rating of Value If score is: 2-4 = H 1 = M X 0 = L	Record the rating on the	first pac

These questions apply to wetlands of all HGM classes.	
HABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
H 1.0. Does the site have the potential to provide habitat?	
H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the three of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: point Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: point Forested (areas where trees have > 30% cover) 1 structure: point If the unit has a Forested class, check if: 1 structure: point The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cov that each cover 20% within the Forested polygon	the shold ts = 4 ts = 2 s = 1 s = 0 er)
H 1.2. Hydroperiods	<u> </u>
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to commore than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods).	over ts = 3 ts = 2 ts = 1 ts = 0 1 1 1 1 1 1 1 1
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . Different patches of the same species can be combined to meet the size threshold and you do not have to the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species point 5 - 19 species	name ts = 2 ts = 1
< 5 species poin	ts = 0
 None = 0 points All three diagrams in this row are HIGH = 3points 	L.1), or . <i>If you</i> 0

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m)	
Stable steen banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	0
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are	
permanently or seasonally inundated (structures for egg-laying by amphibians)	
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	
strata)	
Total for H 1 Add the points in the boxes above	2
Rating of Site Potential If score is: 15-18 = H 7-14 = M X 0-6 = L Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible nabitat (include only habitat that directly abuts wetland unit).	
<i>Calculate:</i> % undisturbed nabitat \underline{O} +[(% moderate and low intensity land uses] $\underline{O.5}$ /2] $\underline{O.25}$ = $\underline{O.25}$ %	
If total accessible habitat is:	•
> ¹ / ₃ (33.3%) of 1 km Polygon points = 3	0
20-33% of 1 km Polygon points = 2	
10-19% of 1 km Polygon points = 1	
< 10% of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate: % undisturbed habitat23.5+[(% moderate and low intensity land uses)11/2] 5.5=29%	
Undisturbed habitat > 50% of Polygon points = 3	1
Undisturbed habitat 10-50% and in 1-3 patches points = 2	-
Undisturbed habitat 10-50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (- 2)	-2

Total for H 2

Add the points in the boxes above

Record the rating on the first page

-1

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score	
that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
 It has 3 or more priority habitats within 100 m (see next page) 	
— It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)	
 It is mapped as a location for an individual WDFW priority species 	
 It is a Wetland of High Conservation Value as determined by the Department of Natural Resources 	
— It has been categorized as an important habitat site in a local or regional comprehensive plan, in a	
Shoreline Master Plan, or in a watershed plan	
Site has 1 or 2 priority habitats (listed on next page) within 100 m	>
Site does not meet any of the criteria above points = 0	1

Rating of Value If score is: 2 = H X 1 = M 0 = L

Rating of Landscape Potential If score is: X 4-6 = H ____1-3 = M ___X < 1 = L

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015 Record the rating on the first page

WDFW Priority Habitats

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

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

- _____Aspen Stands: Pure or mixed stands of aspen greater than 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*).
- _____Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: <u>Old-growth west of Cascade crest</u> Stands of at least 2 tree species, forming a multilayered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. <u>Mature forests</u> – 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 of the Cascade crest.
- X Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).

____Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

- **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.
- <u>Nearshore</u>: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report see web link on previous page*).
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western 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.

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and With a salinity groater than 0.5 ppt	
- With a samily greater than 0.5 ppt Yes -Go to SC 1.1 No= Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area	
Preserve, state Park of Educational, Environmental, of Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less	
than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25)	Cat. I
— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	Cat. II
— The wetland has at least two of the following features: tidal channels, depressions with open water, or	
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	Cat. I
Conservation value? Yes – Go to SC 2.2 No – Go to SC 2.3	Cutif
Yes = Category I No = Not a WHCV	
SC 2.3. 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 2.4 No = Not a WHCV	
their website?	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key	
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – to to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
pond?	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4? Yes = Is a Category I bog No – Go to SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by	
measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the	Cat. I
SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce subalpine fir western red cedar	
western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the	
species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?	
Yes = Is a Category I bog No = Is not a bog	

Category of wetland based on Special Characteristics	
Yes = Category III No = Category IV	Cat. IV
Yes = Category II No – Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?	Cat. III
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2 SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. II
— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = rot an interdunal wetland for rating	
 Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 Ocean Shares, Canalist Lands west of SR 115 and SR 102 	Cat I
In practical terms that means the following geographic areas:	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions.	
SC 6.0. Interdunal Wetlands	
Yes = Category I No = Category I	
mowed grassland. — The wetland is larger than $1/_{10}$ ac (4350 ft ²)	
- At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	Cat. II
SC 5.1. Does the wetland meet all of the following three conditions?	
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt)	
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
Yes = Category I No = No a forested wetland for this section	Cat. I
species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).	
— Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the	
canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OB have a diameter at breast beight (dbb) of 32 in (81 cm) or more	
— Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered	
Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
SC 4.0. Forested Wetlands	

Wetland name or number \underline{A}

This page left blank intentionally