

WETLAND DELINEATION REPORT

April 7, 2023



Kingfisher Energy Storage King County, WA

Prepared for

Dudek 605 Third Street Encinitas, CA 92024

Prepared by Ecological Land Services

1157 3rd Avenue, Suite 220A • Longview, WA 98632 (360) 578-1371 • Project Number 3717.06

SIGNATURES

The information in this report was prepared under the supervision and direction of the undersigned:

Muhile Myran

Michele McGraw Biologist/Environmental Scientist

unica y Chulere

Jess Andrade Biologist/Environmental Scientist

TABLE OF CONTENTS

INTRODUCTION	1
METHODOLOGY	1
SITE DESCRIPTION	
SOILS	
VEGETATION	
HYDROLOGY	3
WETLANDS INVENTORIES	3
CRITICAL AREAS SUMMARY	4
Wetland Categorization Wetland Buffer Requirements Ditch	4
Wetland Buffer Requirements	5
Ditch	6
LIMITATIONS	6
REFERENCES	7

TABLES

Table 1	Summary of NRCS Soil Survey Data.
Table 2	Summary of Wetlands Onsite.

FIGURES

Figure 1	Vicinity Map
Figure 2	Existing Conditions
Figure 3	NRCS Soil Survey
Figure 4	USFWS National Wetlands Inventory
Figure 5	King County Critical Areas
Figure 6	Wetland Rating Form-150' Offset A-G
Figure 7	Wetland Rating Form-150' Offset H-J
Figure 8	Wetland Rating Form-1 KM Offset
Figure 9	Wetland Rating Form-303(d) and TMDLs

APPENDIX A

Wetland Determination Data Forms

APPENDIX B

Wetland Rating Forms

INTRODUCTION

Ecological Land Services, Inc. (ELS) has completed this wetland delineation report on behalf of the applicant, Tenaska, Inc. for the future development of the site. The site is in the Duwamish-Green watershed (WRIA 9). The site is comprised of a portion of King County tax parcels no. 2422059130 and 2422059059, within Section 24, Township 22 North, Range 5 East of the Willamette Meridian (Figure 1). This report describes the ten wetlands and their buffers within the site according to the applicable sections of the *King County Code (KCC) Chapter 21A.24, Critical Areas*.

METHODOLOGY

ELS methodology follows the U.S. Army Corps of Engineers Routine Determination Method described in the 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). For regulatory purposes under the Clean Water Act (Section 404), the Environmental Protection Agency (EPA) defines wetlands as "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" (EPA 2014). Wetlands are regulated as "Waters of the United States" by the U.S. Army Corps of Engineers (Corps), as "Waters of the State" by the Washington Department of Ecology (Ecology), and locally by King County.

ELS biologists conducted a site visit on March 9, 2022, to collect vegetation, soils, and hydrology data, and to make determinations about the presence or absence of critical areas onsite. ELS identified and delineated ten wetlands and one ditch onsite, labeled in this report as Wetlands A, B, C, D, E, F, G, H, I, and J (Figure 2). Topographical changes were also utilized to assist wetland boundary delineation. ELS biologists flagged wetland boundaries with consecutively numbered pink tape flagging labeled "WETLAND BOUNDARY". Vegetation, hydrology, and soil data were collected from 25 test plots to determine the presence or absence of positive wetland indicators (Appendix A). Test plot locations, the roadside ditch, and wetland boundaries were identified using orange flagging tape and were mapped using a handheld submeter accuracy GPS unit.

SITE DESCRIPTION

The site is approximately 11 acres and is located east of 164th Ave SE and west of 168th Place SE (Figures 2). The western portion of the site is regularly mowed and primarily comprised of herbaceous species with some woody shrubs scattered throughout. The eastern portion of the site is primarily forested with evergreen and deciduous trees, woody shrubs, and herbaceous species. The topography of the site is generally flat with localized depressions throughout, and a roadside ditch is located along the western boundary. A paved driveway intersects the site from west to east and accesses a single-family residence that is outside of the site boundary. Surrounding land use includes residential to the north and east. To the west is privately owned forested land as well as the Puget Sound Energy Berrydale Substation, and to the south is Mattson Middle School.

SOILS

The National Resources Conservation Service (NRCS) map depicts one soil unit onsite (Figure 3): Alderwood gravelly sandy loam, 8 to 15 percent slopes (AgC) (NRCS 2022). AgC is characterized as a moderately well drained soil with a very low to moderately low capacity for the most limiting layer to transmit water, and an average depth to water table ranging from 18 to 37 inches below ground surface (BGS). This soil is generally formed on ridges and hills and a typical profile includes gravelly sandy loam from 0 to 7 inches and very gravelly sandy loam clay from 7 to 59 inches BGS. AgC is not considered hydric (NRCS 2022). Soil unit information is summarized in Table 1 below.

Evaluated wetland soils consisted of silty loam with very dark brown (10YR 2/2), yellowish brown (10YR 5/6 and 10YR 5/8), very dark grayish brown (10YR 3/2), dark grayish brown (10YR 4/2), dark gray (10YR 4/1), and black (10YR 2/1) hues (Appendix A). Redoximorphic concentrations observed in wetland areas consisted of dark yellowish brown (10 YR 4/6) and yellowish brown (10YR 5/8) hues. The soil profiles meet the criteria for hydric soil indicators Depleted Matrix (F3) and Redox Dark Surface (F6).

Evaluated upland soils included silty loams with very dark brown (10YR 2/2), yellowish brown (10YR 5/6 and 10YR 5/8), very dark grayish brown (10YR 3/2), dark yellowish brown (10YR 4/6), dark grayish brown (10YR 4/2), grayish brown (10YR 5/2), dark brown (10YR 3/3), very dark brown (10YR 2/2), and black (10YR 2/1). Redoximorphic concentrations observed in upland soils consisted of yellowish brown (10YR 5/8) hues.

Soil Series	Unit Symbol	Percent Slope	Hydrologic Soil Group	Drainage Class	Hydric Soil
Alderwood gravelly sandy loam	AcG	8 to 15	В	Moderately well drained	No

Table 1. Summary of NRCS Soil Survey Data.

ELS biologists' soil observations generally matched NRCS mapped soil series; however, the majority of the wetlands onsite were delineated in areas where non-hydric soils were mapped.

NRCS soil series data and mapping practices are based on general, regional soil characteristics and may not accurately display variations in the local soil conditions. The presence or absence of hydric soil does not conclude whether an area is wetland or upland. Along with hydric soils, hydrology and wetland vegetation must also be present to determine an area as jurisdictional wetland. Due to localized, micro-variations in topography and hydrology, wetlands may be found in areas where hydric soils have not been mapped by the soil survey.

VEGETATION

Plant species are recorded on the attached wetland determination data forms (Appendix A). The indicator categories following the common and scientific names indicate the likelihood of a species to be found in wetlands. Listed from most-likely to least-likely to be found in wetlands, the indicator categories are:

- **OBL** (obligate wetland) Almost always occur in wetlands.
- FACW (facultative wetland) Usually occur in wetlands, but may occur in non-wetlands.
- FAC (facultative) Occur in wetlands and non-wetlands.
- FACU (facultative upland) Usually occur in non-wetlands, but may occur in wetlands.
- UPL (obligate upland) Almost never occur in wetlands.
- NI (no indicator) Status not yet determined.

Wetlands

The wetlands onsite have diverse vegetative strata, including emergent, scrub-shrub, and also forested. Wetland vegetation included **trees:** red alder (*Alnus rubra*, FAC), **shrubs:** willow species (Salix sp., FAC), salmonberry (*Rubus spectabilis*, FAC), and **herbs:** reed canary grass (*Phalaris arundinacea*, FACW), annual bluegrass (*Poa annua*, FAC), field plantain (*Plantago major*, FAC), common rush (*Juncus effusus*, FACW), creeping buttercup (*Ranunculus repens*, FAC), white clover (*Trifolium repens*, FAC), hairy cat's ear (*Hypochaeris radicata*, FACU), and garden vetch (*Vicia sativa*, UPL).

Uplands

The uplands were similarly comprised of a diverse vegetative stratum, including herbaceous, scrub-shrub, and forested. Upland vegetation included **trees:** Douglas-fir (*Pseudotsuga menziesii*, FACU), and English holly (*Ilex aquifolium*, FACU), **shrubs:** Oso-berry (*Oemleria cerasiformis*, FACU), and salmonberry, **herbs:** sword fern (*Polystichum* munitum, FACU), trailing blackberry (*Rubus ursinus*, FACU), oxeye daisy (*Leucanthemun vulgare*, FACU), salal (*Gualtheria shallon*, UPL), scotch broom (*Cytisus scoparius*, UPL), annual bluegrass, field plantain, hairy cat's ear, white clover, and garden vetch.

HYDROLOGY

Site topography is generally flat with localized depressions throughout. Wetland A is a depressional wetland with a highly constricted outlet to the roadside ditch on the west side of the site. Wetlands B, C, D, E, F, I, and J are depressional wetlands with no outlets. Wetland G and H are slope wetlands with no impoundment. A ditch was mapped on the western property boundary, the ditch conveyed hydrology south.

Primary wetland hydrology indicators include Surface Water (A1), High Water Table (A2) (within 12 inches of the soil surface), and Saturation (A3) (within 12 inches of the soil surface). Indicators of wetland hydrology present during the site visit are recorded on the attached wetland determination data forms (Appendix A).

WETLANDS INVENTORIES

National Wetland Inventory

United States Fish and Wildlife Service National Wetland Inventory (NWI) maps a wetland in the northeast corner of the site (Figure 4). ELS findings are partially inconsistent with NWI mapping as one wetland was delineated in the northeast corner and nine others were delineated onsite. NWI

maps are typically used to gather wetland information about a region and due to the large scale necessary for regional mapping are limited in accuracy for localized analyses.

Local Critical Areas Inventory

King County Maps Online (KCMO) does not indicate any onsite wetlands (Figure 5). ELS findings are inconsistent with KCMO mapping as ten wetlands were delineated onsite.

CRITICAL AREAS SUMMARY

Wetland Categorization

The wetland ratings are according to the *Washington State Wetland Rating System for Western Washington: 2014 Update* (Rating System) (Hruby 2014). See Table 2 for a summary of wetlands onsite and Appendix B for Wetland Rating Forms.

Wetland A

Wetland A is an approximate 0.29 acre, Category IV, emergent, depressional wetland which lies along the western boundary of the site and drains into Ditch A. According to the 2014 Rating System, Wetland A scored moderate for improving water quality (6 points), low for hydrologic function (4 points), and low for habitat function (4 points).

Wetland B

Wetland B is an approximate 0.11 acre, Category IV, emergent, depressional wetland, which lies in the western central portion of the site. According to the 2014 Rating System, Wetland B scored moderate for improving water quality (6 points), moderately low for hydrologic function (5 points), and low for habitat function (4 points).

Wetland C

Wetland C is an approximate 0.08 acre, Category IV, emergent, depressional wetland, which lies in the northwestern portion of the site. According to the 2014 Rating System, Wetland C scored moderate for improving water quality (6 points), moderately low for hydrologic function (5 points), and low for habitat function (4 points).

Wetland D

Wetland D is an approximate 0.03 acre, Category IV, emergent, depressional wetland, which lies in the northwestern portion of the site. According to the 2014 Rating System, Wetland D scored moderate for improving water quality (6 points), moderately low for hydrologic function (5 points), and low for habitat function (4 points).

Wetland E

Wetland E is an approximate 0.01 acre, Category IV, emergent, depressional wetland, which lies in the northwestern portion of the site. According to the 2014 Rating System, Wetland E scored moderate for improving water quality (6 points), moderately low for hydrologic function (5 points), and low for habitat function (4 points).

Wetland F

Wetland F is an approximate 0.12 acre, Category IV, emergent, depressional wetland, which lies in the central western portion of the site. According to the 2014 Rating System, Wetland F scored moderate for improving water quality (6 points), moderately low for hydrologic function (5 points), and low for habitat function (4 points).

Wetland G

Wetland G is an approximate 0.02 acre, Category IV, emergent, slope wetland, which lies in the southwestern portion of the site. According to the 2014 Rating System, Wetland G scored moderate for improving water quality (6 points), low for hydrologic function (3 points), and low for habitat function (4 points).

<u>Wetland H</u>

Wetland H is an approximate 0.37 acre Category IV, emergent, slope wetland, which lies in the northeastern portion of the site and extends offsite to the west. According to the 2014 Rating System, Wetland H scored moderate for improving water quality (6 points), low for hydrologic function (3 points), and low for habitat function (4 points).

Wetland I

Wetland I is an approximate 0.03 acre, Category III, scrub-shrub, emergent, depressional wetland, which lies in the northeastern portion of the site. According to the 2014 Rating System, Wetland I scored moderately high for improving water quality (7 points), moderately low for hydrologic function (5 points), and low for habitat function (4 points).

<u>Wetland J</u>

Wetland J is an approximate 0.10 acre, Category IV, forested, depressional wetland, which lies in the southeastern portion of the site. According to the 2014 Rating System, Wetland F scored moderate for improving water quality (6 points), low for hydrologic function (4 points), and low for habitat function (4 points).

Wetland Buffer Requirements

KCC Chapter 21A.24, Critical Areas uses the following three parameters in determining wetland buffer widths for wetlands:

- 1) Wetland categorization per the Rating System
- 2) Habitat score per the Rating System
- 3) Proposed land use intensity

Category III wetlands with proposed high land use intensity and habitat scores of 4, are required to have 80- foot buffers as designated in *KCC Chapter 21A.24.325 Wetlands- buffers*. All category IV wetlands with high land use intensity and habitat scores of 4 require 50-foot buffers as designated in *KCC Chapter 21A.24.325 Wetlands-buffers*. Wetland buffers are summarized in Table 2.

Wetland Name (size)	Cowardin Classification ¹ /HGM	State/Local Classification ²	Habitat Score ²	Proposed Land Use Intensity ³	Standard Buffer Width ⁴
Wetland A (0.29 acres) Wetland B (0.11 acres) Wetland C (0.08 acres) Wetland D (0.03 acres) Wetland E (0.01 acres) Wetland F (0.12 acres)	Emergent/Depressional	Category IV	4	High	50 ft
Wetland G (0.02 acres) Wetland H (0.37 acres)	Emergent/Slope				
Wetland I (0.03 acres)	Emergent, Scrub-shrub/ Depressional	Category III			80 ft
Wetland J (0.10 acres)	Emergent, Scrub-shrub, Forested/Depressional	Category IV			50 ft
Ditch A	N/A	N/A	N/A	N/A	N/A

Table 2. Summary of Wetlands Onsite.

¹Cowardin *et al.* 1979

²According to Hruby 2014

³According to KCC Chapter 21A.24.325 Wetlands-buffers

⁴According to KCC Chapter 21A.24.325 Wetlands-buffers

Ditch

The centerline of Ditch A was identified using a hand-held GPS capable of sub-meter accuracy and aerial photo analysis (Figure 2). Ditch A is approximately 2-feet wide and located at the western border of the site. The ditch conveys water south and continues off site.

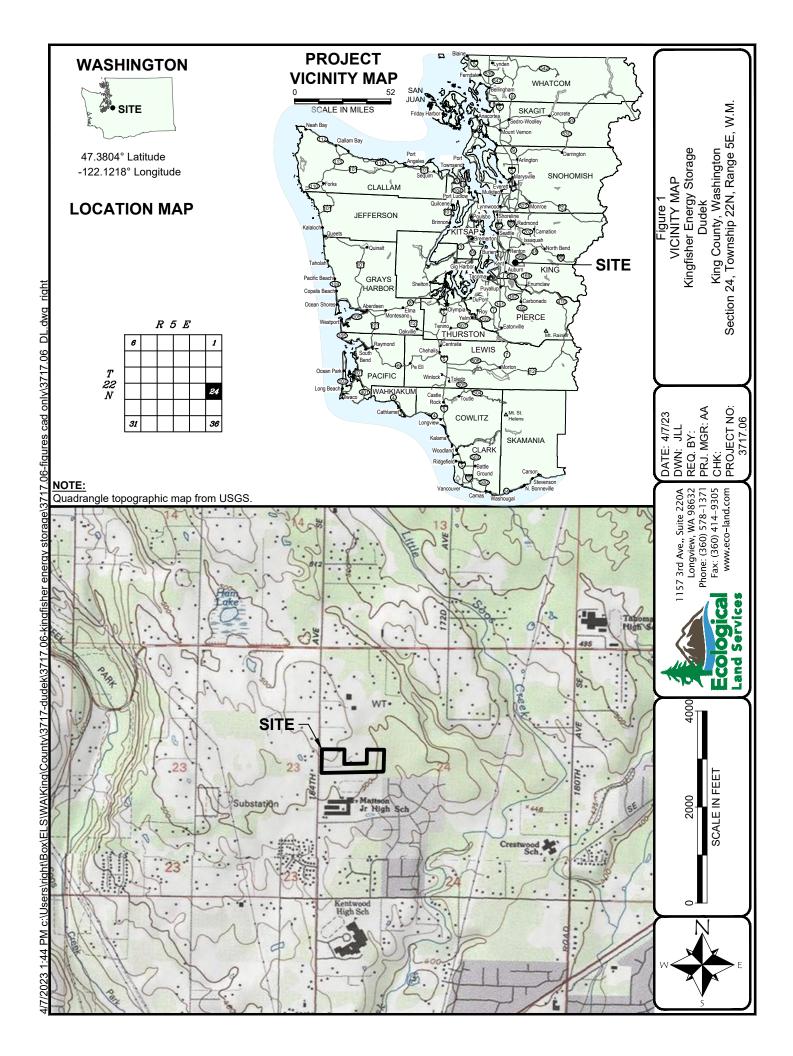
LIMITATIONS

ELS bases this report's determinations on standard scientific methodology and best professional judgment. In our opinion, local, state, and federal regulatory agencies should agree with our determinations. However, the information contained in this report should be considered preliminary and used at your own risk until it has been approved in writing by the appropriate regulatory agencies. ELS is not responsible for the impacts of any changes in environmental standards, practices, or regulations after the date of this report.

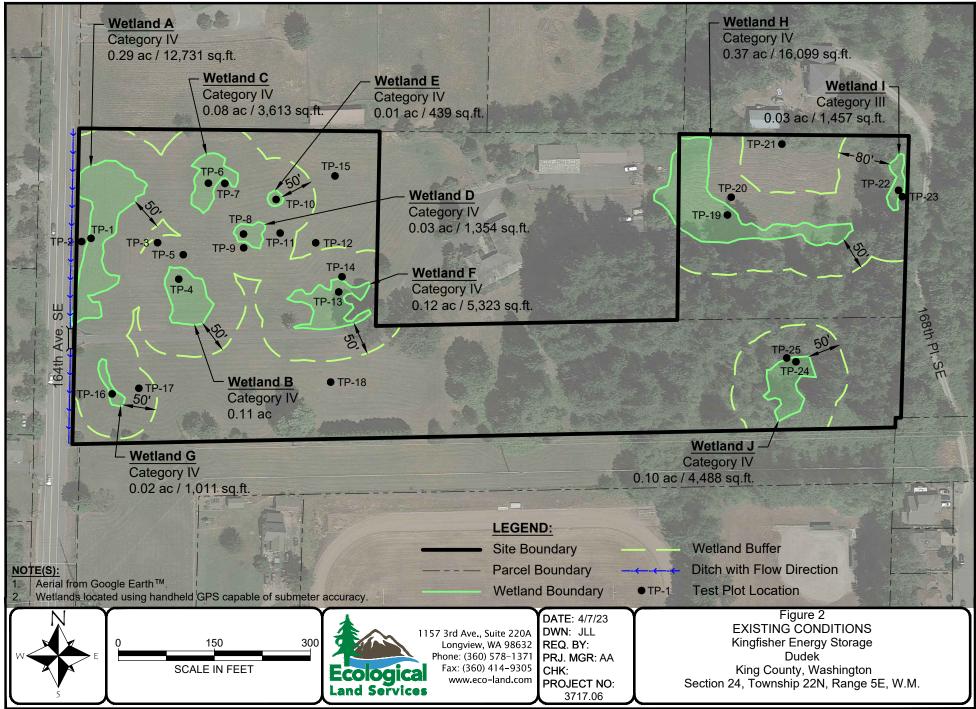
REFERENCES

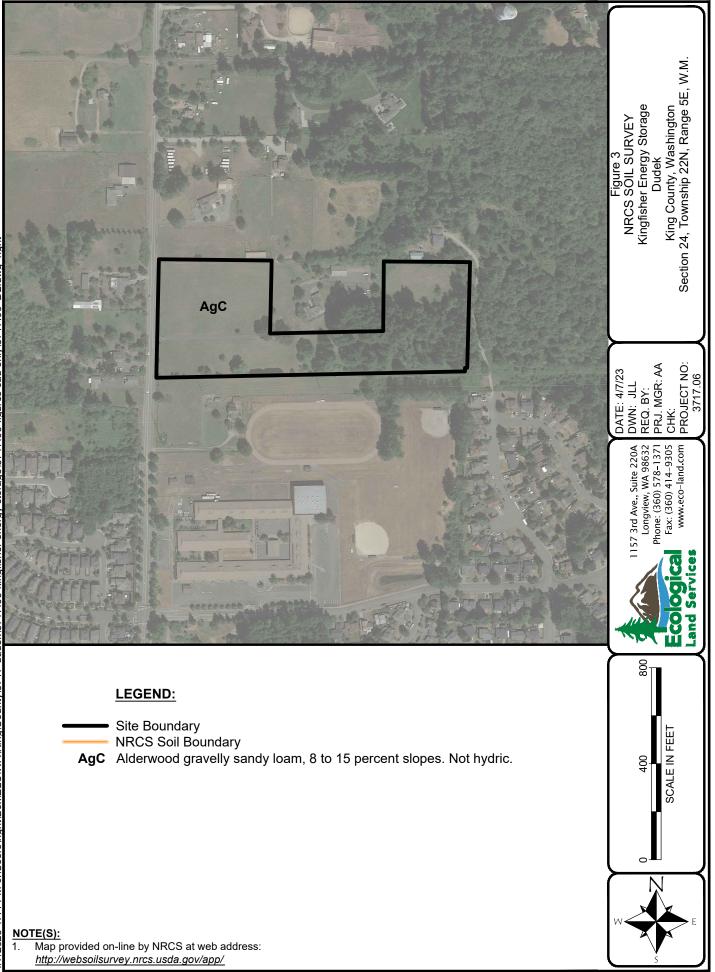
- Cowardin, L.M., C. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-78/31. U.S. Department of the Interior, Fish and Wildlife Service, Office of Biological Services, Washington D.C.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1. U.S. Army Corps of Engineer Waterways Experiment Station, Vicksburg, Mississippi.
- Hruby, T. 2014. *Washington State Wetland Rating System for Western Washington Revised.* Washington State Department of Ecology Publication #14-06-029. Olympia, Washington.
- Hruby, T. 2004. Washington State wetland rating system for western Washington Revised. Washington State Department of Ecology Publication # 04-06-025.
- King County Code (KCC). 2023. Chapter 21A.24. Critical Areas. King County, Washington.
- King County GIS. 2022. iMap Online. https://kingcounty.gov/services/gis/Maps/imap.aspx. Accessed April 2023.
- Natural Resource Conservation Service (NRCS). 2023. National Hydric Soils List. Online document: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric. Accessed April 2023.
- Natural Resource Conservation Service (NRCS). 2023. Soil Survey of Clark County, Washington. Online document: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed April 2023.
- U.S. Army Corps of Engineers (Corps). 2010. 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. C. Noble. ERDC/EL TR-08-13. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center.
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Wetlands Mapper. September 2013. Online document: http://www.fws.gov/wetlands/Data/Mapper.html. Accessed April 2023.
- Washington Department of Fish and Wildlife (WDFW). 2008 (Rev. March 2022). *State of Washington Priority Habitat and Species List.* Olympia, Washington.

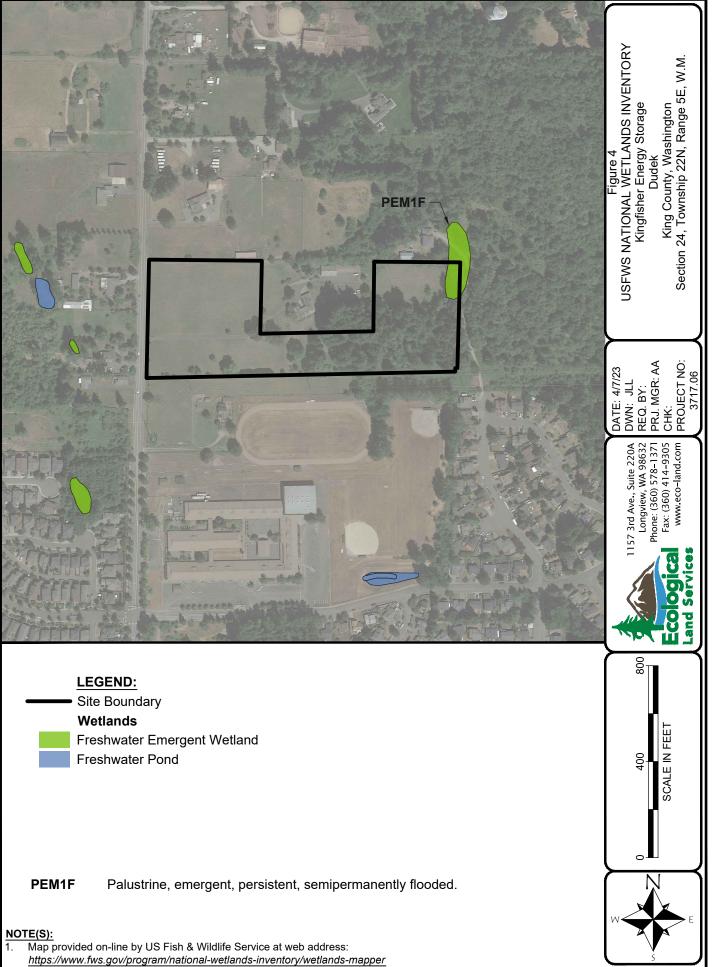
FIGURES

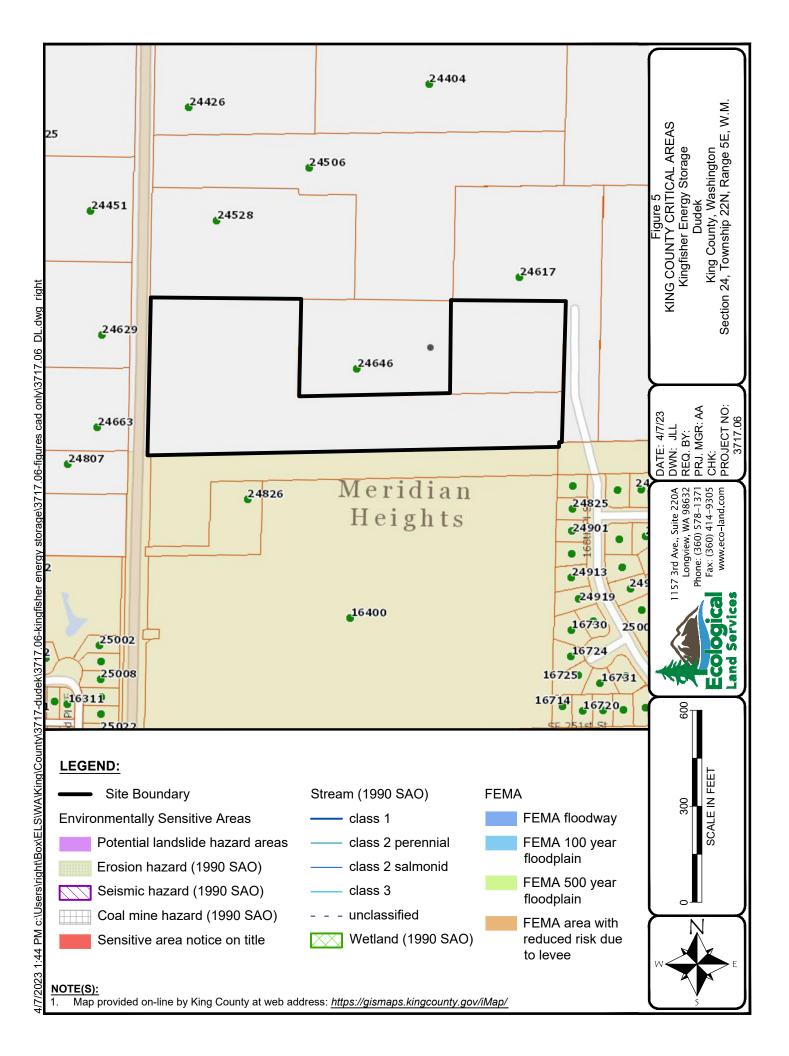


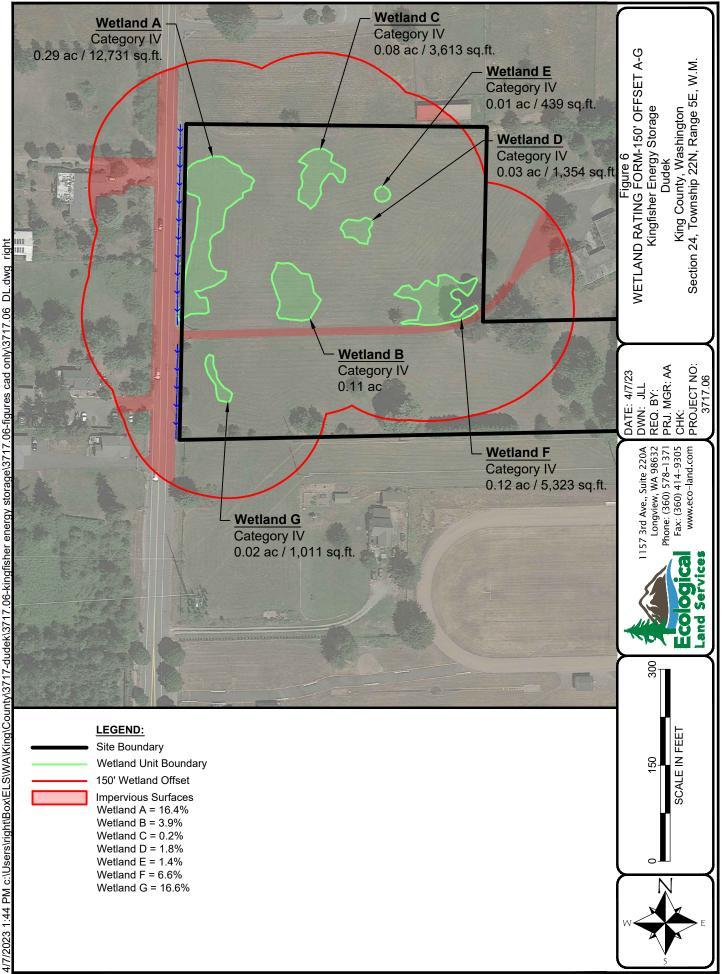
4/7/2023 1:44 PM c:\Users\right\Box\ELS\WA\King\County\3717-dudek\3717.06-kingfisher energy storage\3717.06-figures cad only\3717.06_DL.dwg right

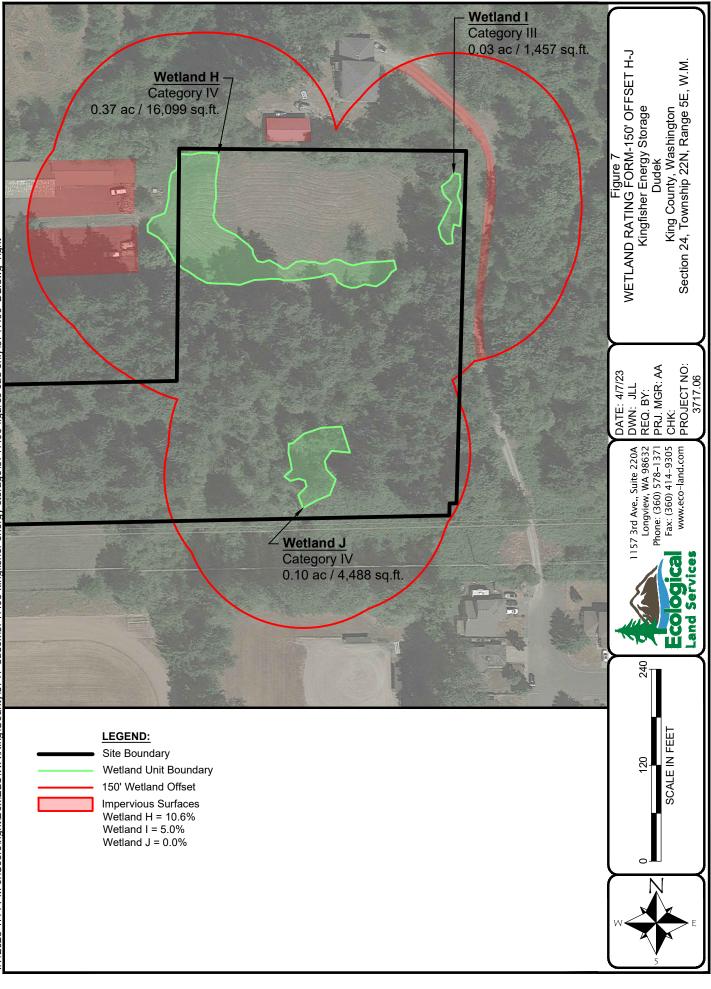


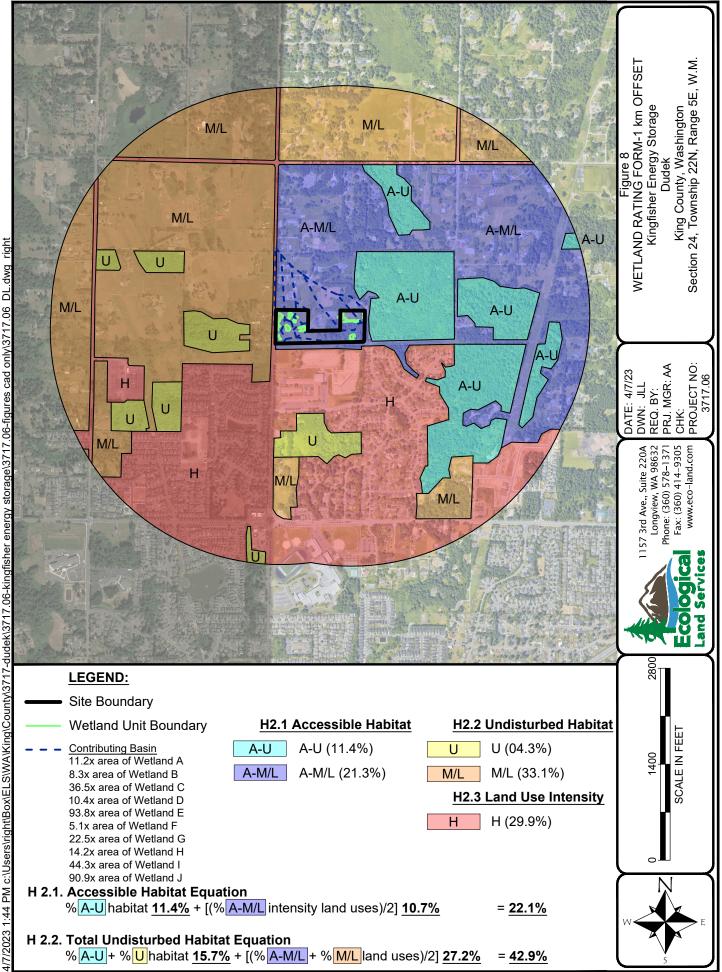


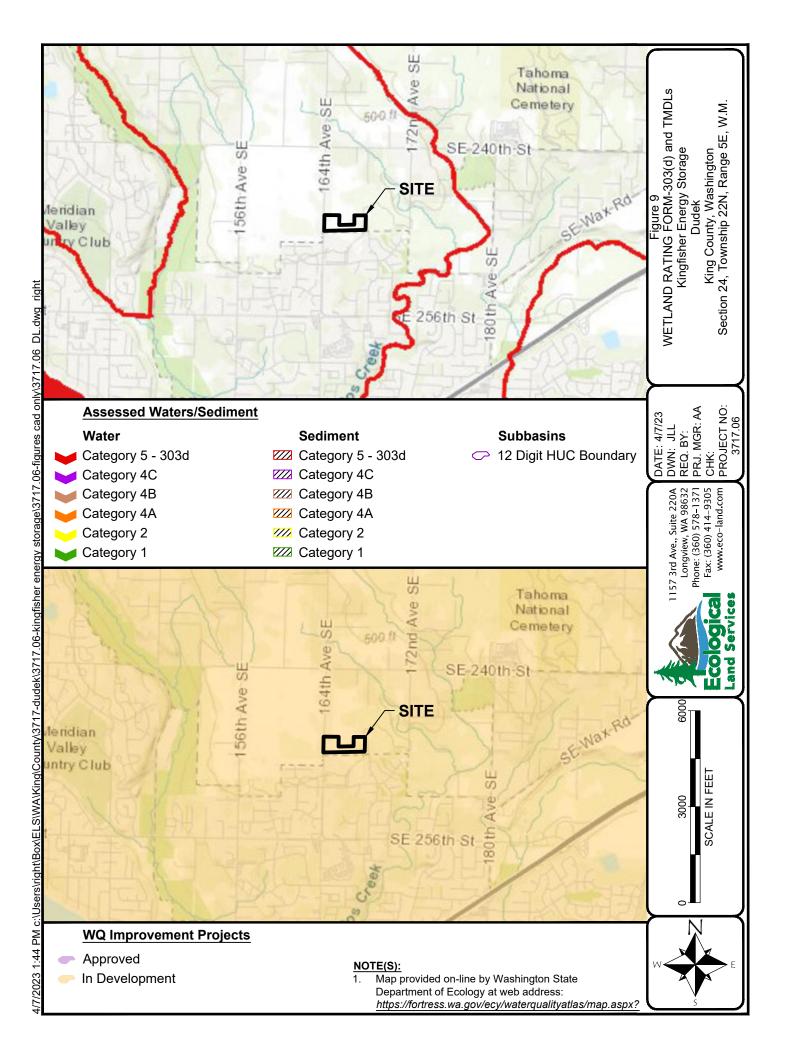












APPENDIX A: WETLAND DETERMINATION DATA FORMS

Project/Site: Kingfisher Applicant/Owner: Dudek					Date: 3/9/22
Investigator(s): McGraw, Michele; Allison, Andrew		Section	State: V	ip, Range: S24 T22 R05	
Landform (hillslope, terrace, etc.): Terrace				privex, none): Concave	Slope (%):8-15 %
Subregion (LRR): A2	Lat: 47.380				NAD83
Soil Map Unit Name: Alderwood gravelly sandy loam	, 8-15 percent	slopes	1	NWI classification: None	
Are climatic / hydrologic conditions on the site typical	for this time of	year? Yes⊠	No (If	f no, explain Remarks.)	
Are Vegetation, Soil, or Hydrology significant				Circumstances" present? Yes⊠ No	
Are Vegetation, Soil, or Hydrology naturally			-	any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	•	ampling poi	int locati	ons, transects, important fea	itures, etc.
Hydrophytic Vegetation Present? Yes ⊠ No Hydric Soils Present? Yes ⊠ No Watten d Hydropert? Yes ⊠ No		Is the San within a V	npled Area Vetland?	a Yes⊠ No⊡	
Wetland Hydrology Present? Yes X No Remarks: This test plot was located within Parcel #2	<u>L</u> 2/22059059 w	ithin Wetland A	The vere	atation in this test plot consisted of ju	et harhaceous
species. This test plot met all three indicators, therefo	pre it meets the	criteria of bein	g wetland.		
VEGETATION – Use scientific names of pla					
Tree Stratum (Plot size:30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet	
1	%	<u> </u>		Number of Dominant Species	<u> </u>
2	<u>%</u>			That Are OBL, FACW, or FAC:	
3	<u>%</u>			Total Number of Dominant	4 (P)
4 20% =	<u>%</u> %	=Total Cover		Species Across All Strata:	<u> </u>
50 /o = 20 /o	/0				
				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: <u>15</u> ft. radius)	0/			That Are OBL, FACW, or FAC	<u>100</u> (A/B)
1. 2.	<u>%</u> %			Prevalence Index worksheet Total % Cover of:	Multiply by:
	<u>%</u> %				Multiply by: x 1=
3. 4.	<u>~</u> %				x 2=
5.	<u> </u>	·		· · · · · · · · · · · · · · · · · · ·	x 3=
50% = 20% =	%	=Total Cover			x 4=
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5= (B)
1. <u>Poa annua</u>	100%	yes	FAC		
2. <u>Phalaris arundinacea</u>	10%	no	FACW	Prevalence Index = B/	
3. <u>Plantago major</u>	10%	no	FAC	Hydrophytic Vegetation Indicate	
4	%	·		1 – Rapid Test for Hydrophy	
5	%			2 - Dominance Test is >50% $3 - Prevalence Index is \leq 3.0^{\circ}$	
6. 7.	<u>%</u> %	·		\square 3 - Prevalence index is ≤ 3.0	
8.	<u> </u>	·		supporting data in Remarks	
9.	<u> </u>			sheet)	
10.	%			5 - Wetland Non-Vascular Pl	lants ¹
11.	%			1 —	
$50\% = \underline{60} \ 20\% = \underline{24}$	120%	=Total Cover		Problematic Hydrophytic Veg	getation ¹ (Explain)
Woody Vine Stratum (Plot size: <u>15</u> ft radius)					
1	%			¹ Indicators of hydric soil and wetla	
2	%	Tatalo		must be present, unless disturbed	or problematic.
50% = 20% =	%	=Total Cover		Hydrophytic	
				Hydrophytic Vegetation Present?	Yes⊠ No□
% Bare Ground in Herb Stratum <u>0%</u>					
Remarks:					

SOIL	occrimtion. (Dece	wike to the day	th mandad to do		liantar ar ann	firms the	abaanaa of indicators)	Sampling Point: <u>TP1</u>
Profile D	escription: (Desc	ribe to the dep	th needed to do	cument the inc	licator or con	firm the	absence of indicators.)	
Depth	Matrix			Redox Feat		-	_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%		Loc ²	Texture	Remarks
0-9	10YR 2/2	95%	10YR 4/6	5%	<u> </u>	Μ	Silty Loam	
9-16	10YR 5/6	<u> 100% </u>		%			Silty Loam	
		<u> </u>		%				
		<u> </u>		<u> </u>				
		%		%				
		%		%				
		%		%				
	C=Concentration,					nd Grain	s. ² Location: PL=Pore L	ining, M=Matrix
	oil Indicators: (A	pplicable to all			.)		Indicators for Problematic	Hydric Soils
Histos			Sandy Re				2 cm Muck (A10)	
	Epipedon (A2)		Stripped N				Red Parent Material (TF2)	
	Histic (A3)			icky Mineral (F		RA 1)	Very Shallow Dark Surface	· ,
	gen Sulfide (A4)			eyed Matrix (F2)		Other (Explain in Remarks	5)
	ed Below Dark Su	. ,	Depleted	. ,			A	
	Dark Surface (A12	,		rk Surface (F6)			³ Indicators of hydrophytic veg	
	Mucky Minerals (Dark Surface (F	7)		Wetland hydrology must b	
Sandy	Gleyed Matrix (S	4)	🗌 Redox De	pressions (F8)			unless disturbed or proble	mauc
Restrictiv	ve Layer (if prese	ent):						
-								
Type:						1.5.4	drie Seil Present?	
Depth (in Remarks:						пу	dric Soil Present?	Yes⊠ No⊡
HYDROL Wetland	-OGY Hydrology Indica	ators:						
Primary Ir	ndicators (min. of	one required; ch	eck all that apply)			Secondary Indicator	s (2 or more required)
🛛 Surfac	e Water (A1)		Water-Sta	ined Leaves (B	9) (except ML	.RA 1, 2,	4A, 🗌 Water-Stained Lo	eaves (B9) (MLRA 1, 2 ,
🗌 High V	Vater Table (A2)		and 4	B)			4A, and 4B)	
🛛 Satura	ition (A3)		Salt Crust	(B11)			Drainage Pattern	is (B10)
	Marks (B1)		· ·	vertebrates (B1	,		Dry-Season Wat	
	ent Deposits (B2)			Sulfide Odor (C	,		Saturation Visible	e on Aerial Imagery (CS
	eposits (B3)		Oxidized I	Rhizospheres a	long Living Ro	ots (C3)	Geomorphic Pos	ition (D2)
•	Mat or crust (B4)		Presence	of Reduced Iro	n (C4)		Shallow Aquitard	l (D3)
	eposits (B5)			n Reduction in	,	,	FAC Neutral Tes	· · ·
	e Soil Cracks (B6	,		Stressed Plan		A)	Raised Ant Mour	
	ation Visible on Ae			olain in Remark	s)		Frost-Heave Hur	nmocks (D7)
Sparse	ely Vegetated Cor	ncave Surface (E	38)					
	servations:		_					
	Vater Present?	Yes 🖂		epth (Inches):				
	ble Present?	Yes 🗌		epth (Inches):		Wet	land Hydrology Present?	
	n Present? Capillary fringe)	Yes 🛛	No 🗌 🛛 🛛	epth (Inches):	<u>U</u>			Yes 🛛 No 🗌
	Recorded Data (S	Stream dauge m	onitoring well ae	rial photos pre	vious inspectio	ons) if av	vailable:	
		gg-,				,		
Remarks:	TP1 was inundat	ed with 1/2" of w	vater above grour	d surface.				

Project/Site: Kingfisher		City/Cou	unty: King	S	ampling Date: 3/	9/22	
Applicant/Owner: Dudek	,	State: V		ampling Point: TF			
Investigator(s): McGraw, Michele; Allison, Andrew	Sectio	n, Townshi	p, Range: S24 T22 R05				
Landform (hillslope, terrace, etc.): Terrace			nvex, none): Concave	Slop	be (%):8-	-15 %	
Subregion (LRR): A2	Lat: 47.380	5119	Long: -12	2.1227999	Datum: NAD83	3	
Soil Map Unit Name: Alderwood gravelly sandy loam,				NWI classification: None			
Are climatic / hydrologic conditions on the site typical	for this time of	year?Yes⊠	No (If	f no, explain Remarks.)			
Are Vegetation, Soil, or Hydrology significant	ly disturbed?	Are	e "Normal (Circumstances" present? Y	es 🛛 No 🗌		
Are Vegetation, Soil, or Hydrology naturally p	oroblematic?	(If need	ed, explain	any answers in Remarks.)	1		
SUMMARY OF FINDINGS – Attach site map	showing s	ampling po	int locati	ons, transects, impor	tant features,	etc.	
Hydrophytic Vegetation Present? Yes 🛛 No							
Hydric Soils Present? Yes 🗌 No			npled Area		3		
Wetland Hydrology Present? Yes X No		within a V	vetiand?	Yes No	2		
Remarks: This test plot was located within Parcel #2					sisted of just herb	oaceous	
species. This test plot did not meet all wetland indicate	ors, therefore i	t does not mee	t the criteri	a of being wetland.			
VEGETATION – Use scientific names of pla	ants.						
	Absolute	Dominant	Indicator	Dominance Test Works	sheet		
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status				
1.	%			Number of Dominant Sp	ecies	2	(A)
2.	%			That Are OBL, FACW, o			(, ,
3.	%						
4.	%			Total Number of Domina		2	(B)
50% = 20% =		=Total Cover		Species Across All Strat	a:		()
Cooling (Obsub Obstature (Dist size) 45 ft redius)				Percent of Dominant Spe		100	
Sapling/Shrub Stratum (Plot size: <u>15</u> ft. radius)	0/			That Are OBL, FACW, o		<u>100</u>	(A/B)
1	<u> % </u>			Prevalence Index work		برجا براجيله	
2	<u> % </u> %			Total % Cover of:	x 1=	ltiply by:	
3	<u> % </u>			OBL species FACW species			_
4 5	<u> % </u>				x 2= x 3=		_
5. 50% = 20% =	<u>%</u>	=Total Cover		FACU species	x 3= x 4=		_
$\frac{1}{1} \frac{1}{1} \frac{1}$	/0			UPL species	× += x 5=		_
1. Poa annua	60%	yes	FAC	Column Totals:	(A)		(B)
2. Plantago major	30%	yes	FAC		Index = $B/A=$		_ (=)
3. Gaultheria shallon	20%	no	UPL	Hydrophytic Vegetation			
4. Cytisus scoparius	20%	no	UPL	1 – Rapid Test for		etation	
5. Leucanthemum vulgare	10%	no	FACU	2 – Dominance Te		Julion	
6.	%			3 - Prevalence Ind			
7.	%			4 - Morphological /		vide	
8.	0/			supporting data in			;
9.	0/			sheet)			
10.	%			5 - Wetland Non-V	ascular Plants ¹		
11.	%						
$50\% = \frac{70}{20\%} = \frac{28}{28}$	140%	=Total Cover		Problematic Hydro	phytic Vegetation	¹ (Explaii	n)
Woody Vine Stratum (Plot size: 15 ft radius)							
1	%			¹ Indicators of hydric soil			
2	%			must be present, unless	disturbed or prob	lematic.	
50% = 20% =	%	=Total Cover					
				Hydrophytic			
				Vegetation			_
% Para Cround in Harb Stratum 0%				Present?	Yes	No No	
% Bare Ground in Herb Stratum <u>0%</u>							
Remarks:							

SOIL								Sampling Point: TP2
Profile D	escription: (Desc	ribe to the dept	h needed to doc	ument the inc	licator or conf	firm the	absence of indicators.)	
Depth	Matrix	¢		Redox Feat	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 2/2	100%		%			Silty Loam	
6-16	10YR 5/6	100%		%			Silty Loam	
		<u>%</u>		<u>%</u>				·
		<u>%</u> %		%				
		<u>%</u>		%				
		%		%				
		%		%				
	C=Concentration,					nd Grain		0
	ioil Indicators: (A	oplicable to all I			.)		Indicators for Problemati	ic Hydric Soils
Histos	Epipedon (A2)		Sandy Rec				2 cm Muck (A10) Red Parent Material (TF)	2)
	Histic (A3)				1) (except MLF	2 Δ 1)	Very Shallow Dark Surfa	
	ogen Sulfide (A4)		Loamy Gle			\A I)	Other (Explain in Remar	· · · ·
-	ted Below Dark Su	urface (A11)	Depleted N)			
	Dark Surface (A12	. ,	Redox Dar	. ,			³ Indicators of hydrophytic ve	egetation and
	y Mucky Minerals (,		ark Surface (F	7)		Wetland hydrology must	
	y Gleyed Matrix (S4	,	Redox Dep		- /		unless disturbed or prob	lematic
	ve Layer (if prese							
Restrict	ve Layer (ii prese							
Type:								
Depth (in	iches):					Hy	dric Soil Present?	Yes No 🛛
Remarks	:							
ł								
HYDRO	LOGY							· · ·
-	Hydrology Indica	tors:						
	ndicators (min. of c		eck all that apply)				Secondary Indicat	ors (2 or more required)
							· · · · ·	
_	ce Water (A1)				9) (except ML	RA 1, 2,		Leaves (B9) (MLRA 1, 2,
-	Water Table (A2)		and 4E	,			4A, and 4B	-
	ation (A3)		Salt Crust	. ,	2)		Drainage Patte	
	Marks (B1)		Aquatic Inv				Dry-Season Wa	
	nent Deposits (B2)				ار) Iong Living Roo	oto (C2)		ble on Aerial Imagery (C9)
	Deposits (B3)					515 (C3)	Geomorphic Po	
-	Mat or crust (B4)				. ,	2)	Shallow Aquita	
	eposits (B5)				Tilled Soils (Ce	,	FAC Neutral Te	
	ce Soil Cracks (B6) ation Visible on Ae				ts (D1) (LRR A	()	Frost-Heave H	unds (D6) (LRR A)
					.5)			
	ely Vegetated Con servations:		0)					
	Water Present?	Yes 🗌	No 🖂 🛛 De	epth (Inches):				
	able Present?	Yes 🗌		epth (Inches):		Wet	land Hydrology Present?	
	n Present?	Yes 🖂		epth (Inches):				Yes 🛛 No 🗌
	Capillary fringe)			,	—			
Describe	Recorded Data (S	tream gauge, mo	onitoring well, aer	ial photos, pre	vious inspectio	ns), if av	vailable:	
Dame								
Remarks								

Project/Site: Kingfisher		City/Cou	unty: <u>King</u>		ampling Date: <u>3/9/22</u>
Applicant/Owner: Dudek			State: V		mpling Point: TP3
Investigator(s): McGraw, Michele; Allison, Andrew				p, Range: <u>S24 T22 R05</u>	
Landform (hillslope, terrace, etc.): <u>Terrace</u> Subregion (LRR): A2	Lat: 47.380			onvex, none): Convex	Slope (%):8-15 % Datum: NAD83
Soil Map Unit Name: Alderwood gravelly sandy loam,				2.1223205 NWI classification: None	Datum. NADOS
Are climatic / hydrologic conditions on the site typical f					
Are Vegetation, Soil, or Hydrology significant				Circumstances" present? Ye	es⊠ No⊡
Are Vegetation, Soil, or Hydrology naturally p	roblematic?	(If neede	ed, explain	any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing s	sampling poi	int locati	ons, transects, import	ant features, etc.
Hydrophytic Vegetation Present? Yes 🛛 No [la tha San	nnlad Ara		
Hydric Soils Present? Yes 🗌 No [within a V	npled Area	a Yes⊡ No⊠	1
Wetland Hydrology Present? Yes No					
Remarks: This test plot was located within Parcel #24					isted of just herbaceous
species. This test plot did not meet all wetland indicate	ors, inerelore	it does not mee	t the criteri	a or being wetland.	
VEGETATION – Use scientific names of pla	ants.				
	Absolute	Dominant	Indicator	Dominance Test Works	heet
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status		
1.	%	·		Number of Dominant Spe	cies 1 (A)
2.	%			That Are OBL, FACW, or	FAC:
3	%			Total Number of Deminer	
4	%			Total Number of Dominar Species Across All Strata	
50% = 20% =	%	=Total Cover			
				Percent of Dominant Spe	cies
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW, or	
1	%	<u></u>		Prevalence Index works	
2	%			Total % Cover of:	Multiply by:
3	<u>%</u>	·		OBL species FACW species	x 1= x 2=
5.	<u> </u>			T T T T	x 2= x 3=
50% = 20% =	%	=Total Cover		FACU species	X 3= X 4=
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5=
1. Poa annua	75%	yes	FAC	Column Totals:	(A) (B)
2. Leucanthemum vulgare	15%	no	FACU	Prevalence Ir	
3. <u>Hypochaeris radicata</u>	15%	no	FACU	Hydrophytic Vegetation	
4. Plantago major	15%	no	FACU	1 – Rapid Test for H	
5. <u>Trifolium repens</u>	10%	no	FAC	2 – Dominance Tes	
6. 7.	<u>%</u> %	·		3 - Prevalence Inde 4 - Morphological A	
	<u>%</u>	·			Remarks or on a separate
8. 9.	0/	·		sheet)	
10.	0/	·		5 - Wetland Non-Va	iscular Plants ¹
11.	%				
$50\% = \underline{65} \ 20\% = \underline{26}$	130%	=Total Cover		Problematic Hydrop	hytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: <u>15</u> ft radius)				4	
1	<u>%</u> %			¹ Indicators of hydric soil a	
2	<u> % </u>	=Total Cover		must be present, unless o	isturbed of problematic.
50% = 20% =	70			Hydrophytic	
				Vegetation	
				Present?	Yes⊠ No⊡
% Bare Ground in Herb Stratum <u>0%</u>					
Remarks:					

SOIL								Sampling Point: TP3
Profile D	escription: (Desc	ribe to the dept	n needed to doo	ument the ind	licator or confi	rm the a	absence of indicators.)	
Depth	Matrix	(Redox Feat	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-9	10YR 2/2	100%		%			Silty Loam	
9-16	10YR 5/6	100%		%			Silty Loam	
		<u>%</u>		%				
		<u>%</u>		%			· ·	
		<u>%</u> %		<u>%</u> %			·	
		<u>%</u>		%				
		<u> </u>		<u> </u>			· ·	
¹ Type:	C=Concentration,		=Reduced Matrix		or Coated San	d Grains	² Location: PL=Pore	Lining M=Matrix
	Soil Indicators: (A						Indicators for Problematic	
Histos		•	Sandy Red		,		🗌 2 cm Muck (A10)	
Histic	Epipedon (A2)		Stripped N	latrix (S6)			Red Parent Material (TF2	2)
Black	Histic (A3)		🗌 Loamy Mu	cky Mineral (F1	I) (except MLR	A 1)	Very Shallow Dark Surface	ce (TF12)
Hydro	ogen Sulfide (A4)		🗌 Loamy Gle	yed Matrix (F2)		Other (Explain in Remark	(S)
🗌 Deple	eted Below Dark Su	rface (A11)	Depleted N	/latrix (F3)				
Thick	Dark Surface (A12	2)	🗌 Redox Dai	k Surface (F6)		:	³ Indicators of hydrophytic ve	
Sand	y Mucky Minerals (S1)	Depleted D	Dark Surface (F	7)		Wetland hydrology must	
	y Gleyed Matrix (S		Redox Dep				unless disturbed or proble	ematic
Restricti	ve Layer (if prese	nt).		. ,				
		,.						
Type:								
Depth (in	iches):					Hyd	Iric Soil Present?	Yes∏ No⊠
Remarks	:							
1								
HYDRO		-						
	Hydrology Indica		al all that apply					(2)
Primary	ndicators (min. of o	one required; che	ck all that apply)				Secondary Indicato	ors (2 or more required)
Surfa	ce Water (A1)		Water-Stai	ned Leaves (B	9) (except MLF	RA 1, 2, 4	4A, 🛛 Water-Stained L	_eaves (B9) (MLRA 1, 2,
🗌 High V	Water Table (A2)		and 4	3)			4A, and 4B)	
Satura	ation (A3)		Salt Crust	(B11)			Drainage Patter	ns (B10)
Water	r Marks (B1)		Aquatic Inv	vertebrates (B1	3)		🗌 Dry-Season Wa	iter Table (C2)
🗌 Sedin	nent Deposits (B2)		Hydrogen	Sulfide Odor (C	21)		Saturation Visib	le on Aerial Imagery (C9)
🗌 Drift 🛛	Deposits (B3)		Oxidized R	hizospheres al	ong Living Roo	ts (C3)	🗌 Geomorphic Po	sition (D2)
	Mat or crust (B4)		Presence	of Reduced Iron	n (C4)	. ,	Shallow Aquitar	d (D3)
-	eposits (B5)				Tilled Soils (C6)	FAC Neutral Te	
	ce Soil Cracks (B6)				ts (D1) (LRR A)	,	Raised Ant Mou	()
	ation Visible on Ae			lain in Remark		,	Frost-Heave Hu	
	ely Vegetated Con				0)			
	servations:							
	Water Present?	Yes 🗌	No 🖂 🛛 D	epth (Inches):				
	able Present?	Yes 🗌		epth (Inches):		Wetl	and Hydrology Present?	
Saturatio	n Present?	Yes 🖾		epth (Inches):		Ì	, ,	Yes 🗌 No 🖂
	Capillary fringe)	_	_	,		İ		
	Recorded Data (S	tream gauge, mo	nitoring well, aer	ial photos, prev	vious inspection	ns), if ava	ailable:	
Remarks								

Project/Site: Kingfisher	City/Coι	unty: <u>King</u> State: V		Date: <u>3/9/22</u> Point: TP4	
Applicant/Owner: Dudek Investigator(s): McGraw, Michele; Allison, Andrew		Soctio		p, Range: S24 T22 R05	P0Int. 1P4
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Concave	Slope (%):8-15 %
Subregion (LRR): A2	Lat: 47.380		Long: -122		: NAD83
Soil Map Unit Name: Alderwood gravelly sandy loam				NWI classification: None	. 10,000
Are climatic / hydrologic conditions on the site typical					
Are Vegetation, Soil, or Hydrology significan				Circumstances" present? Yes⊠ N	JoL
Are Vegetation, Soil, or Hydrology naturally				any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	p showing s				atures, etc.
Hydrophytic Vegetation Present? Yes 🛛 No		Is the Sar	npled Area	a	
Hydric Soils Present? Yes ⊠ No		within a W		Yes⊠ No⊡	
Wetland Hydrology Present? Yes X No					
Remarks: This test plot was located within Parcel #2 species. This test plot met all three indicators, therefore					ust herbaceous
VEGETATION – Use scientific names of pl	Absolute	Dominant	Indicator	Dominance Test Worksheet	
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status	Dominance rest worksheet	
1.	<u>% Cover</u> %	000000	Olalus	Number of Dominant Species	1 (A)
2	<u> </u>			That Are OBL, FACW, or FAC:	<u> </u>
3.				4	
4.	<u> </u>			Total Number of Dominant	1 (B)
50% = 20% =	<u> </u>	=Total Cover		Species Across All Strata:	
<u> </u>		-10101 0010.			
· · · · · · · · · · · · · · · · · · ·				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW, or FAC	<u>100</u> (A/B)
1	%			Prevalence Index worksheet	
2	%			Total % Cover of:	Multiply by:
3	<u>%</u>			OBL species	x 1=
4	%			FACW species	x 2=
5.	%			FAC species	x 3=
$50\% = \ 20\% = \$	%	=Total Cover		FACU species	x 4=
Herb Stratum (Plot size: <u>5</u> ft radius)	200/		540	UPL species	x 5= (D)
1. <u>Poa annua</u>	90%	yes	FAC	Column Totals:	(A) (B)
2. Juncus effusus	20%	no	FACW	Prevalence Index = I	
3. Phalaris arundinacea	20%	no	FACW	_ Hydrophytic Vegetation Indica	
4. <u>Ranunculus repens</u>	10%	no	FAC	1 – Rapid Test for Hydroph	
5	%			\square 2 – Dominance Test is >50	
6.	%			3 - Prevalence Index is ≤3.	
7	%			4 - Morphological Adaptatio	
8	<u>%</u>			supporting data in Remarks	s or on a separate
9	%			sheet)	
10	<u>%</u>			5 - Wetland Non-Vascular	Plants'
11	<u>%</u>	Tatal Cover			······································
$50\% = \frac{70}{20\%} = \frac{28}{20\%}$	140%	=Total Cover		Problematic Hydrophytic V	egetation ' (Explain)
<u>Woody Vine Stratum</u> (Plot size: <u>15</u> ft radius)	0/			11 - disaters of budding only and woth	ومعامدات المنا
1	<u>%</u> %			¹ Indicators of hydric soil and weth	
2	<u>%</u> %	=Total Cover		must be present, unless disturbe	d or problematic.
50% = 20% =	70			Hydrophytic	
				Vegetation	
				Present?	Yes⊠ No⊡
% Bare Ground in Herb Stratum 0%					
Remarks:					
Remarks.					

SOIL Drefile D	econintions (Deco	wike to the denti	wanded to doe	um ant tha in a	liantan an annf		hoopoo of indiactory)	Sampling Point: TP4
Profile D	escription: (Desc	ribe to the deptr	needed to doc	ument the inc	licator or cont	irm the a	absence of indicators.)	
Depth	Matriz			Redox Feat			_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
<u> </u>	10YR 3/2 10YR 4/2	<u>95%</u> 100%	10YR 4/6	<u>5%</u>			Silty Loam	
	1011(4/2	<u> 100 % </u>		%				
		<u> </u>		%				
		%		%				
		%		%				
		%		%				
		<u>%</u>		%				
	C=Concentration,					nd Grains		
Histos	oil Indicators: (A	pplicable to all L	Sandy Red		-)	ſ	Indicators for Problematic 2 cm Muck (A10)	nyunc sons
	Epipedon (A2)		Stripped M				Red Parent Material (TF2))
	Histic (A3)				1) (except MLF		Very Shallow Dark Surfac	
	gen Sulfide (A4)		Loamy Gle				Other (Explain in Remarks	
-	ted Below Dark Su	urface (A11)	Depleted M		,	•		- /
·	Dark Surface (A12	· · · ·	Redox Dar			3	³ Indicators of hydrophytic veg	petation and
	/ Mucky Minerals (,		ark Surface (F	7)		Wetland hydrology must b	be present,
-	Gleyed Matrix (S		Redox Dep	•	,		unless disturbed or proble	ematic
	ve Layer (if prese	•						
Restrict	ve Layer (il prese	in.						
Type:								
Depth (in	ches):					Hyd	ric Soil Present?	Yes⊠ No⊡
Remarks	:							
HYDRO	LOGY							
	Hydrology Indica							
Primary I	ndicators (min. of	one required; che	ck all that apply)				Secondary Indicator	rs (2 or more required)
🛛 Surfac	ce Water (A1)		U Water-Stai	ned Leaves (B	9) (except MLI	RA 1, 2, 4	4A, 🗌 Water-Stained L	eaves (B9) (MLRA 1, 2,
🗌 High \	Nater Table (A2)		and 4E		,		4A, and 4B)	
🛛 Satura	ation (A3)		Salt Crust	(B11)			Drainage Patterr	ns (B10)
U Water	⁻ Marks (B1)		Aquatic Inv	ertebrates (B1	3)		🗌 Dry-Season Wat	er Table (C2)
🗌 Sedim	nent Deposits (B2)		🗌 Hydrogen S	Sulfide Odor (C	21)		Saturation Visible	e on Aerial Imagery (C9)
🗌 Drift D	Deposits (B3)		Oxidized R	hizospheres a	long Living Roc	ots (C3)	Geomorphic Pos	sition (D2)
🗌 Algal	Mat or crust (B4)		Presence of	of Reduced Iron	n (C4)		Shallow Aquitarc	1 (D3)
🗌 Iron D	eposits (B5)		Recent Iror	n Reduction in	Tilled Soils (C6	5)	FAC Neutral Tes	st (D5)
Surfac	ce Soil Cracks (B6)	Stunted or	Stressed Plan	ts (D1) (LRR A)	Raised Ant Mour	nds (D6) (LRR A)
🗌 Inund	ation Visible on Ae	rial Imagery (B7)	Other (Exp	lain in Remark	s)		Frost-Heave Hur	mmocks (D7)
	ely Vegetated Cor	ncave Surface (B8)					
	servations:							
	Water Present?	Yes 🖂		epth (Inches):				
	ble Present?	Yes 🗌		epth (Inches):		Wetla	and Hydrology Present?	
	n Present?	Yes 🛛	No 🗌 🛛 De	epth (Inches):	<u>0</u>			Yes 🛛 No 🗌
	Capillary fringe) Recorded Data (S	tream dauge mo	nitoring well aer	ial photos prev	vious inspection	ns), if ava	ailable:	
		5				-,, ave		
Remarks	: TP4 was inundat	ed with 1.5" of wa	ter above ground	d surface.				

Project/Site: Kingfisher	City/Cou	unty: <u>King</u>	Sampling Date: 3/9/22					
Applicant/Owner: Dudek			State: V		ampling Point:	TP5		
Investigator(s): McGraw, Michele; Allison, Andrew				p, Range: <u>S24 T22 R05</u>				
Landform (hillslope, terrace, etc.): Terrace	1 17 000			convex, none): Convex Slope (%):8-15 %				
Subregion (LRR): A2	Lat: 47.380			2.1221572	Datum: NAD	83		
Soil Map Unit Name: <u>Alderwood gravelly sandy loam</u> . Are climatic / hydrologic conditions on the site typical	8-15 percent	siopes		NWI classification: None				
Are Vegetation, Soil, or Hydrology significant				Circumstances" present? Ye				
Are Vegetation, Soil, or Hydrology asymicant				any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map		,	•	• •		etc		
-				ons, transects, impor		5, 610.		
Hydrophytic Vegetation Present? Yes ⊠ No Hydric Soils Present? Yes □ No		Is the Sar	npled Area	3				
Wetland Hydrology Present? Yes ⊠ No		within a V	Vetland?	Yes 🗌 No 🛛	2			
Remarks: This test plot was located within Parcel #2		orth of Wetland	B. The ve	petation in this test plot con	sisted of just he	erbaceous		
species. This test plot did not meet all wetland indicators, therefore it does not meet the criteria of being wetland.								
VEGETATION – Use scientific names of pla	ants.							
	Absolute	Dominant	Indicator	Dominance Test Works	heet			
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status					
1.	%		010100	Number of Dominant Spe	ecies	1	(A)	
2.	%			That Are OBL, FACW, or		·		
3.	%							
4.	%			Total Number of Dominal		1	(B)	
50% = 20% =	%	=Total Cover		Species Across All Strata	a:		. ,	
				Demonst of Deminent Cre				
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				Percent of Dominant Spe That Are OBL, FACW, or		100	(A/B)	
1.	%			Prevalence Index works		100	(700)	
2	<u> </u>			Total % Cover of:		ultiply by:		
3.	0/			OBL species	x 1=			
4.				FACW species	x 2=		_	
5.	%			FAC species	x 3=			
50% = 20% =	%	=Total Cover		FACU species	x 4=		_	
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5=		_	
1. Poa annua	60%	yes	FAC	Column Totals:	(A)		(B)	
2. Hypochaeris radicata	15%	no	FACU	Prevalence I				
3. <u>Plantago major</u>	10%	no	FAC	Hydrophytic Vegetation				
4. <u>Trifolium repens</u>	10%	no	FAC	1 – Rapid Test for I		getation		
5. Rubus ursinus	<u>5%</u>	no	FACU	2 – Dominance Tes				
6. 7.	<u> % </u> %			3 - Prevalence Inde		ovido		
8.	<u> % </u>			supporting data in I			e.	
0	<u> </u>			sheet)		a ooparate	5	
9 10	<u> </u>			5 - Wetland Non-Va	ascular Plants ¹			
11.	%							
50% = 50 $20% = 20$	100%	=Total Cover		Problematic Hydrop	phytic Vegetatic	on ¹ (Explai	n)	
Woody Vine Stratum (Plot size: 15 ft radius)							,	
1	%			¹ Indicators of hydric soil a				
2	%			must be present, unless	disturbed or pro	blematic.		
50% = 20% =	%	=Total Cover						
				Hydrophytic				
				Vegetation	X		_	
% Bare Ground in Herb Stratum 0%				Present?	Ye	es⊠ No[
Remarks:								

SOIL								Sampling Point: TP5
Profile D	escription: (Desc	ribe to the dept	h needed to do	cument the inc	licator or confi	rm the a	bsence of indicators.)	
Depth	Matrix	¢		Redox Feat	ures			
(inches)	Color (moist)	%	Color (moist)	%		Loc ²	Texture	Remarks
0-11	10YR 3/2	100%		%			Silty Loam	
11-16	10YR 4/6	100%		%			Silty Loam	
		%		%	,			
		<u>%</u>		%				
		<u>%</u> %		<u>%</u> %	·			
		<u> </u>		<u>%</u> %				·
——		<u> </u>		<u>%</u> %	<u> </u>			
¹ Type:	C=Concentration,		I=Reduced Matri		or Coated San	d Grains	. ² Location: PL=Pore	Lining M=Matrix
	oil Indicators: (A						Indicators for Problemati	
Histos		•	Sandy Re		,		2 cm Muck (A10)	
Histic	Epipedon (A2)		Stripped N	Aatrix (S6)		[Red Parent Material (TF	2)
Black	Histic (A3)		🗌 Loamy Mu	icky Mineral (F	1) (except MLR	A1) [Very Shallow Dark Surfa	ice (TF12)
🗌 Hydro	gen Sulfide (A4)		🗌 Loamy Gl	eyed Matrix (F2	2)	[Other (Explain in Remarl	ks)
Deple	ted Below Dark Su	ırface (A11)	Depleted	Matrix (F3)				
Thick	Dark Surface (A12	2)	🗌 Redox Da	rk Surface (F6)		3	Indicators of hydrophytic ve	
Sandy	/ Mucky Minerals (S1)	Depleted	Dark Surface (F	7)		Wetland hydrology must	
Sandy	/ Gleyed Matrix (S4	4)	🗌 Redox De	pressions (F8)			unless disturbed or prob	lematic
Restricti	ve Layer (if prese	nt):						
Type:								
Depth (in						Hyd	ric Soil Present?	Yes⊡ No⊠
Remarks	:							
HYDRO	LOGY							
Wetland	Hydrology Indica	tors:						
	ndicators (min. of c		eck all that apply)			Secondary Indicate	ors (2 or more required)
		1 1						
	ce Water (A1)				9) (except MLR	RA 1, 2, 4		Leaves (B9) (MLRA 1, 2,
	Water Table (A2)		and 4	,			4A, and 4B	
	ation (A3)		Salt Crust	. ,	0)		Drainage Patte	
	Marks (B1)			vertebrates (B1	,		Dry-Season Wa	
	ent Deposits (B2)			Sulfide Odor (0	,	(00)		ble on Aerial Imagery (C9)
	eposits (B3)			-	long Living Roo	ts (C3)	Geomorphic Po	
	Mat or crust (B4)			of Reduced Iro	. ,		Shallow Aquitar	
	eposits (B5)				Tilled Soils (C6	,	FAC Neutral Te	()
	ce Soil Cracks (B6)				ts (D1) (LRR A)			unds (D6) (LRR A)
	ation Visible on Ae			olain in Remark	s)		Erost-Heave Hu	ummocks (D7)
-	ely Vegetated Con	cave Surface (B8	3)					
	servations:	. –						
	Nater Present?	Yes 🗌		epth (Inches):	10			
	ble Present?	Yes 🛛		epth (Inches):		wetia	and Hydrology Present?	
	n Present? Capillary fringe)	Yes 🗌	No 🛛 🛛 🖸	epth (Inches):				Yes 🛛 No 🗌
	Recorded Data (S	tream gauge mo	nitoring well ae	rial photos pre	vious inspection	s) if ava	ilable [.]	
						, ii ava		
Remarks	:							

Project/Site: Kingfisher		City/Co	unty: King		g Date: <u>3/9/22</u>			
Applicant/Owner: Dudek		Castia	State: V	NA Sampling	Point: TP6			
Investigator(s): McGraw, Michele; Allison, Andrew			n, rownsm	ip, Range: S24 T22 R05				
Landform (hillslope, terrace, etc.): <u>Terrace</u> Subregion (LRR): A2	Lat: 47.380			onvex, none): Concave	Slope (%): <u>8-15 %</u> n: NAD83			
Sublegion (LRR). A2 Soil Map Unit Name: Alderwood gravelly sandy loam				NWI classification: None	I. NADOS			
Are climatic / hydrologic conditions on the site typical								
Are Vegetation, Soil, or Hydrology significan				Circumstances" present? Yes	No			
Are Vegetation, Soil, or Hydrology naturally		(If need	ed. explain	any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site ma	-		-		patures etc.			
Hydrophytic Vegetation Present? Yes No					5414100, 010.			
Hydrophytic Vegetation Present? Yes 🖂 No Hydric Soils Present? Yes 🖂 No		Is the Sar	mpled Area					
Wetland Hydrology Present? Yes X No		within a Wetland? Yes No						
Remarks: This test plot was located within Parcel #2		ithin Wetland (C. The year	etation in this test plot consisted of	iust herbaceous			
species. This test plot met all three indicators, therefore					Juot			
			5					
I								
l								
VEGETATION – Use scientific names of pl	ante							
VEGETATION - Use scientine names of pr		Dominant	Indicator	Deminance Test Workshoot				
Trans Otratium (Plat aira;20.4 radius)	Absolute		Indicator	Dominance Test Worksheet				
<u>Tree Stratum</u> (Plot size: <u>30</u> ft radius)	% Cover	Species?	Status	Number of Dominant Species	4 (A)			
1	<u>%</u>	·		That Are OBL, FACW, or FAC:	<u> </u>			
2	<u>%</u>	·						
3	%		·	Total Number of Dominant	1 (B)			
4 50% = 20% =	%	=Total Cover		Species Across All Strata:	<u> </u>			
50% = 20% =	/0							
I				Percent of Dominant Species				
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW, or FAC	<u>100</u> (A/B)			
1	%			Prevalence Index worksheet				
2.	%			Total % Cover of:	Multiply by:			
3	%			OBL species	x 1=			
4.	%	·		FACW species	x 2=			
5	<u>%</u>	T-tol Cover		FAC species	x 3= x 4= x 5= (A)(B)			
50% = 20% = Herb Stratum (Plot size: 5 ft radius)	%	=Total Cover		FACU species UPL species	x 4=			
<u>nero Stratum</u> (Piot size: <u>5</u> it radius) 1. <i>Poa annua</i>	90%	VOC	FAC	Column Totals:	x 5= (A) (B)			
2. Phalaris arundinacea	20%	yes no	FAC					
 Phalans arundinacea Ranunculus repens 	20%		FACT	Prevalence Index = Hydrophytic Vegetation Indica				
4. Trifolium repens	<u>20%</u> 5%	no no	FAC FAC	1 – Rapid Test for Hydropl				
 Thiolium repens Hypochaeris radicata 	<u> </u>	no	FAC	\square				
6.	<u> </u>	110	1 400	\square 3 - Prevalence Index is \leq 3	- / -			
7.	<u> </u>			3 - Prevalence index is ≤3 4 - Morphological Adaptati				
8.	<u> </u>			supporting data in Remark				
9.	%	·		sheet)				
10.	%			5 - Wetland Non-Vascular	Plants ¹			
11.	%							
$50\% = \frac{70}{20\%} = \frac{28}{28}$	140%	=Total Cover		Problematic Hydrophytic V	/egetation ¹ (Explain)			
Woody Vine Stratum (Plot size: 15 ft radius)								
1	%			¹ Indicators of hydric soil and wet	tland hydrology			
2.	%			must be present, unless disturbe				
50% = 20% =	%	=Total Cover						
0070 2070				Hydrophytic				
			Vegetation					
% Bare Ground in Herb Stratum 0%				Present?	Yes⊠ No⊡			
Remarks:								
I								

SOIL								Sampling Point: TP6		
Profile D	escription: (Desc	ribe to the dept	th needed to docu	ument the ind	licator or con	firm the	absence of indicators.)			
Depth	Matrix	(Redox Feat	ures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-8	10YR 5/6	100%		%			Silty Loam			
8-16	10YR 4/2	95%	10YR 4/6	5%	C	М	Silty Loam			
		<u> </u>		%						
		<u>%</u>		%						
		<u> </u>		<u> </u>						
	-	%		%						
		%		%						
	C=Concentration,					nd Grain				
	oil Indicators: (A	pplicable to all			.)		Indicators for Problemati	c Hydric Soils		
Histos	()		Sandy Red				2 cm Muck (A10)	<u>۱</u>		
	Epipedon (A2)		Stripped Ma				Red Parent Material (TF2	,		
	Histic (A3)					RA 1)	Very Shallow Dark Surfa			
	gen Sulfide (A4)		Loamy Gley)		Other (Explain in Remark	(S)		
•	ted Below Dark Su	. ,	Depleted M	. ,			3 Indiantara of hydrophytic yr	actation and		
	Dark Surface (A12	,		· · ·	-7)		³ Indicators of hydrophytic ve Wetland hydrology must			
-	Mucky Minerals (.7)		unless disturbed or probl			
	Gleyed Matrix (S		🗌 Redox Dep	ressions (F8)						
Restricti	ve Layer (if prese	ent):								
Type:										
Depth (in	ches):					Hy	dric Soil Present?	Yes⊠ No⊡		
Remarks										
l.										
HYDRO		-								
	Hydrology Indica		a al (all that annh i)					(2)		
Primary I	ndicators (min. of o	one required; chi	eck all that apply)				Secondary Indicate	ors (2 or more required)		
	e Water (A1)		Water-Stair	ned Leaves (B	9) (except ML	.RA 1, 2,		Leaves (B9) (MLRA 1, 2,		
🛛 High \	Vater Table (A2)		and 4B)			4A, and 4B))		
Satura	ation (A3)		Salt Crust (B11)			Drainage Patter	. ,		
	Marks (B1)		Aquatic Investion	ertebrates (B1	3)		🗌 Dry-Season Wa	ater Table (C2)		
Sedim	ent Deposits (B2)		🗌 Hydrogen S	Sulfide Odor (C	21)	Saturation Visible on Aerial Imagery (C9)				
🗌 Drift D	eposits (B3)		Oxidized RI	hizospheres a	long Living Ro	ots (C3)	🗌 Geomorphic Po	sition (D2)		
🗌 Algal I	Mat or crust (B4)		Presence o	f Reduced Iro	n (C4)		🗌 Shallow Aquitar	d (D3)		
🗌 Iron D	eposits (B5)		Recent Iron	Reduction in	Tilled Soils (C	6)	FAC Neutral Te	est (D5)		
Surfac	ce Soil Cracks (B6)	Stunted or Stunted or Stunted	Stressed Plan	ts (D1) (LRR A	A)	🗌 Raised Ant Mou	unds (D6) (LRR A)		
🗌 Inunda	ation Visible on Ae	rial Imagery (B7) 🗌 Other (Expl	ain in Remark	s)		🗌 Frost-Heave Hu	ımmocks (D7)		
Spars	ely Vegetated Cor	cave Surface (B	8)							
	servations:									
	Vater Present?	Yes 🗌		pth (Inches):						
	ble Present?	Yes 🛛		pth (Inches):	<u>4</u>	Wet	land Hydrology Present?			
	n Present?	Yes 🗌	No 🛛 🛛 De	pth (Inches):				Yes 🛛 No 🗌		
	Capillary fringe)	tream dauge im	onitoring well agri	al photos prov	vious inspectio	ns) if av	vailahle.			
Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Remarks	:									

Project/Site: Kingfisher	City/Co	unty: <u>King</u> State:V		Sampling Date: 3/9/22		
Applicant/Owner: Dudek					Sampling Point: TP7	
Investigator(s): McGraw, Michele; Allison, Andrew				p, Range: <u>S24 T22 R05</u>		
Landform (hillslope, terrace, etc.): Terrace Subregion (LRR): A2	Lat: 47.380			onvex, none): <u>Convex</u> 2.1219023 E	Slope (%): <u>8-15 %</u> Datum: NAD83	
Soil Map Unit Name: Alderwood gravelly sandy loam,	8-15 percent	slones		NWI classification: None	Datum: NAD85	
Are climatic / hydrologic conditions on the site typical f	or this time of	siopes vear? Yes⊠				
Are Vegetation, Soil, or Hydrology significant				Circumstances" present? Yes		
Are Vegetation, Soil, or Hydrology naturally p				any answers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map		-			nt features, etc.	
Hydrophytic Vegetation Present? Yes 🛛 No [-			· · · ·	······································	
Hydric Soils Present? Yes No [npled Area			
Wetland Hydrology Present? Yes X No [within a W	Vetland?	Yes⊡ No⊠		
Remarks: This test plot was located within Parcel #24	422059059, ot				sisted of just herbaceous	
species. This test plot did not meet all wetland indicate	ors, therefore i	t does not mee	et the criteri	a of being wetland.		
VEGETATION – Use scientific names of pla	nto					
VEGETATION - Use scientific names of pla						
	Absolute	Dominant	Indicator	Dominance Test Workshe	eet	
<u>Tree Stratum</u> (Plot size: <u>30</u> ft radius)	% Cover	Species?	Status			
1	<u>%</u>			Number of Dominant Speci That Are OBL, FACW, or F		
2	%				AC.	
3	<u> % </u> %			Total Number of Dominant	1 (B)	
4		=Total Cover		Species Across All Strata:	(B)	
50 % = <u>20 % = </u>	/0					
				Percent of Dominant Speci		
Sapling/Shrub Stratum (Plot size: <u>15</u> ft. radius)	0/			That Are OBL, FACW, or F		
1	0 /			Prevalence Index worksh		
2				Total % Cover of: OBL species	Multiply by: x 1=	
3. 4.	%			- · · -	x 2=	
5.	<u> </u>				x 3=	
50% = 20% =		=Total Cover		FACU species	x 4=	
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5=	
1. <u>Poa annua</u>	100%	yes	FAC	Column Totals:	(A) (B)	
2. Hypochaeris radicata	10%	no	FACU	Prevalence Ind		
3. Leucanthemum vulgare	10%	no	FACU	Hydrophytic Vegetation I		
4. <u>Vicia americana</u>	10%	no	FAC	1 – Rapid Test for Hy	drophytic Vegetation	
5. <u>Trifolium repens</u>	10%	no	FAC	2 – Dominance Test i		
6. <u>Plantago major</u>	<u> 10% </u> %	no	FAC	3 - Prevalence Index 4 - Morphological Ada		
7	<u> % </u>	,			emarks or on a separate	
0	<u>%</u>			sheet)		
10.	<u> </u>			5 - Wetland Non-Vas	cular Plants ¹	
11.	<u>%</u>					
50% = 75 20% = 30	150%	=Total Cover		Problematic Hydroph	ytic Vegetation ¹ (Explain)	
Woody Vine Stratum (Plot size: 15 ft radius)						
1	%			¹ Indicators of hydric soil an	d wetland hydrology	
2	%			must be present, unless dis	sturbed or problematic.	
50% = 20% =	%	=Total Cover				
				Hydrophytic		
				Vegetation Present?	Yes⊠ No⊡	
% Bare Ground in Herb Stratum 0%				Fresent?		
Remarks:						

SOIL							Sampling Point: TP7
Profile Description: (Describ	be to the depth	needed to docu	ment the ind	icator or confin	rm the a	bsence of indicators.)	
Depth Matrix			Redox Featu	ILOS			
(inches) Color (moist)	%	Color (moist)	%		Loc ²	Texture	Remarks
0-6 10YR 3/2	100%		%	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Silty Loam	
6-16 10YR 4/2	100%		%			Silty Loam	
	%		%				
	%		%				
	%		<u>%</u>				
<u> </u>	<u>%</u>		<u>%</u> %				
	<u>%</u> %		<u>%</u> %				
¹ Type: C=Concentration, D=		Poducod Matrix		or Coated San	d Grains	² Location: PL=Pore	Lining M-Matrix
Hydric Soil Indicators: (App						Indicators for Problematic	
Histosal (A1)		Sandy Redo		,		2 cm Muck (A10)	
Histic Epipedon (A2)		Stripped Ma				Red Parent Material (TF2	2)
Black Histic (A3)		Loamy Mucl	ky Mineral (F1) (except MLR	A1) [Very Shallow Dark Surface	ce (TF12)
Hydrogen Sulfide (A4)		Loamy Gley			-	Other (Explain in Remark	
Depleted Below Dark Surfa	ace (A11)	Depleted Ma					,
Thick Dark Surface (A12)	()	Redox Dark	. ,		3	Indicators of hydrophytic ve	getation and
Sandy Mucky Minerals (S1)	Depleted Da	ark Surface (F	7)		Wetland hydrology must	be present,
Sandy Gleyed Matrix (S4)	,	Redox Depr		,		unless disturbed or proble	ematic
Restrictive Layer (if present).				- <u>-</u>		
Restrictive Layer (ii present)-						
Туре:							
Depth (inches):					Hydi	ric Soil Present?	Yes No 🛛
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicato							
Primary Indicators (min. of one	e required; checl	k all that apply)				Secondary Indicato	ors (2 or more required)
Surface Water (A1)		□ Water-Stain	ed Leaves (B9) (except MLR	A 1. 2. 4	A. 🗆 Water-Stained L	_eaves (B9) (MLRA 1, 2,
High Water Table (A2)		and 4B)			, ,	4A, and 4B)	
\boxtimes Saturation (A3)		Salt Crust (E				Drainage Patter	
Water Marks (B1)		Aquatic Inve	,	3)		Dry-Season Wa	. ,
Sediment Deposits (B2)		Hydrogen S	•	,			le on Aerial Imagery (C9)
Drift Deposits (B3)		Oxidized Rh			s (C3)	Geomorphic Po	
Algal Mat or crust (B4)		Presence of		• •	- ()	Shallow Aquitar	
Iron Deposits (B5)		Recent Iron		. ,		FAC Neutral Te	
Surface Soil Cracks (B6)		Stunted or S		· · ·		Raised Ant Mou	
Inundation Visible on Aeria	l Imageny (B7)	Other (Expla				Frost-Heave Hu	
Sparsely Vegetated Conca				>)			
Field Observations:		· · · · · · · · · · · · · · · · · · ·					
	′es 🗌	No 🛛 Dej	oth (Inches):				
	′es ⊠		oth (Inches):	14	Wetla	Ind Hydrology Present?	
	′es ⊠		oth (Inches):		Wella	ind Hydrology Frescht:	Yes 🖂 No 🗌
(Includes Capillary fringe)			<u> </u>	<u></u>			
Describe Recorded Data (Stre	am gauge, mon	itoring well, aeria	al photos, prev	vious inspection	s), if ava	ilable:	
		J ,			,		
Remarks:							

Project/Site: Kingfisher		City/Coι	unty: <u>King</u> State: V		g Date: <u>3/9/22</u>
Applicant/Owner: <u>Dudek</u> Investigator(s): McGraw, Michele; Allison, Andrew		Sectio		ip, Range: S24 T22 R05	g Point: TP8
Landform (hillslope, terrace, etc.): Terrace				p, Range: <u>524 122 R05</u> prvex, none): Concave	Slope (%):8-15 %
Subregion (LRR): A2	Lat: 47.380				m: NAD83
Soll Map Unit Name: Alderwood gravelly sandy loam				NWI classification: None	
Are climatic / hydrologic conditions on the site typical					
Are Vegetation , Soil , or Hydrology significan				Circumstances" present? Yes	No
Are Vegetation, Soil, or Hydrology naturally				any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma			-		eatures, etc.
Hydrophytic Vegetation Present? Yes 🛛 No		Is the Sar	npled Area	2	
Hydric Soils Present?Yes ⊠NoWetland Hydrology Present?Yes ⊠No	_	within a W		Yes⊠ No⊡	
Wetland Hydrology Present? Yes X No Remarks: This test plot was located within Parcel #2		ithin Wetland C	. The vege	etation in this test plot consisted o	f just herbaceous
species. This test plot met all three indicators, therefore	ore it meets the	criteria of bein	g wetland.		
VEGETATION – Use scientific names of pla					
Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet	
1	%			Number of Dominant Species	(A)
2	%			That Are OBL, FACW, or FAC:	
3	%			Total Number of Dominant	
4	<u>%</u>			Species Across All Strata:	<u> </u>
50% = 20% =	%	=Total Cover			
				Percent of Dominant Species	(1
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW, or FAC	<u>100</u> (A/B)
1	<u>%</u>			Prevalence Index worksheet	
2	<u>%</u>	·		Total % Cover of:	Multiply by:
3	<u>%</u> %			OBL species	x 1=
4 5	%			FACW species	x 2= x 3=
5 20% =		=Total Cover		FAC species	x 3= x 4=
Herb Stratum (Plot size: 5 ft radius)	/0			UPL species	
1. Poa annua	100%	yes	FAC	Column Totals:	x 5= (A) (B)
2. Ranunculus repens	10%	no	FAC	Prevalence Index =	
3. Phalaris arundinacea	10%	no	FACW	Hydrophytic Vegetation Indic	
4.	%			1 – Rapid Test for Hydrop	
5.	<u> </u>			\boxtimes 2 – Dominance Test is >5	
6.	%	· ·	-	\square 3 - Prevalence Index is \leq	
7.	%			4 - Morphological Adaptat	
8.	%			supporting data in Remar	
9.	%			sheet)	
10.	%			5 - Wetland Non-Vascular	r Plants ¹
11	%]	
$50\% = \underline{60}\ 20\% = \underline{24}$	120%	=Total Cover		Problematic Hydrophytic	Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: <u>15</u> ft radius)					·
1	<u>%</u>			¹ Indicators of hydric soil and we	
2	<u>%</u>	Tatal Course		must be present, unless disturb	ed or problematic.
50% = 20% =	%	=Total Cover		Hydrophytic	
				Vegetation	
				Present?	Yes⊠ No⊡
% Bare Ground in Herb Stratum 0%					
Remarks:				-	
I					

SOIL								Sampling Point: TP8
Profile D	escription: (Desc	ribe to the dept	h needed to doc	ument the ind	licator or cor	nfirm the	e absence of indicators.)	
Depth	Matrix	(Redox Feat	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 3/2	95%	10YR 4/6	5%	С	М	Silty Loam	
7-16	10YR 5/8	100%		%			Silty Loam	
		<u>%</u>		%				
		<u>%</u> %		%				
		<u>%</u> %		%				
		<u>%</u>		%				
		<u> </u>		%				
¹ Tvpe:	C=Concentration,	D=Depletion, RM	=Reduced Matrix		or Coated Sa	and Grair	ns. ² Location: PL=Pore	Lining, M=Matrix
	oil Indicators: (Ap						Indicators for Problemati	
Histos		•	Sandy Red				2 cm Muck (A10)	-
Histic	Epipedon (A2)		Stripped M	atrix (S6)			Red Parent Material (TF2	2)
Black	Histic (A3)		🗌 Loamy Mu	cky Mineral (F	1) (except ML	_RA 1)	Very Shallow Dark Surfa	ce (TF12)
🗌 Hydro	gen Sulfide (A4)		🗌 Loamy Gle	yed Matrix (F2)		Other (Explain in Remark	ks)
Deple	ted Below Dark Su	rface (A11)	Depleted M	latrix (F3)				
Thick	Dark Surface (A12)	🛛 Redox Dar	k Surface (F6)			³ Indicators of hydrophytic ve	
Sandy	Mucky Minerals (S1)	Depleted D	ark Surface (F	7)		Wetland hydrology must	
Sandy	Gleyed Matrix (S4	1)	🗌 Redox Dep	ressions (F8)			unless disturbed or probl	lematic
Restricti	ve Layer (if prese	nt):				<u> </u>		
Type:								
Depth (in	ches):					Ну	/dric Soil Present?	Yes⊠ No□
Remarks	:							
HYDROI								
	Hydrology Indica		ok all that apply)					
Phillary I	ndicators (min. of c	ne required, che	ck all that apply)				Secondary Indicate	ors (2 or more required)
Surfac	e Water (A1)		Water-Stain	ned Leaves (B	9) (except M	LRA 1, 2	, 4A, 🛛 🗌 Water-Stained I	Leaves (B9) (MLRA 1, 2,
🛛 High V	Vater Table (A2)		and 4E	8)			4A, and 4B))
🛛 Satura	ation (A3)		Salt Crust ((B11)			Drainage Patter	rns (B10)
U Water	Marks (B1)		Aquatic Inv	ertebrates (B1	3)		🗌 Dry-Season Wa	ater Table (C2)
Sedim	ent Deposits (B2)		🗌 Hydrogen S	Sulfide Odor (O	21)		Saturation Visib	ole on Aerial Imagery (C9)
🗌 Drift D	eposits (B3)		Oxidized R	hizospheres a	long Living Ro	oots (C3)	Geomorphic Po	osition (D2)
🗌 Algal I	Mat or crust (B4)		Presence of	of Reduced Iron	n (C4)		Shallow Aquitar	rd (D3)
Iron D	eposits (B5)		Recent Iror	Reduction in	Tilled Soils (C	26)	FAC Neutral Te	est (D5)
Surfac	e Soil Cracks (B6)	1	Stunted or	Stressed Plan	ts (D1) (LRR	A)	🗌 Raised Ant Mou	
	ation Visible on Ae					,	Frost-Heave Hu	
	ely Vegetated Con				,			× /
<u> </u>	servations:		·					
Surface V	Vater Present?	Yes 🗌	No 🖂 🛛 De	epth (Inches):				
Water Ta	ble Present?	Yes 🖂		epth (Inches):	4	We	tland Hydrology Present?	
Saturatio	n Present?	Yes 🖂	No 🗌 🛛 De	epth (Inches):	<u>0</u>			Yes 🛛 No 🗌
	Capillary fringe)							
Describe	Recorded Data (S	tream gauge, mo	nitoring well, aer	ial photos, prev	vious inspecti	ons), if a	vailable:	
Remarks								
. containo								

Project/Site: Kingfisher		City/Cou	unty: King	:	Sampling Date: 3/9/22
Applicant/Owner: Dudek			State: V		Sampling Point: TP9
Investigator(s): McGraw, Michele; Allison, Andrew				p, Range: S24 T22 R05	
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Convex	Slope (%): <u>8-15 %</u>
Subregion (LRR): A2	Lat: 47.380			2.1217769	Datum: NAD83
Soil Map Unit Name: Alderwood gravelly sandy loam,	8-15 percent	slopes		NWI classification: None	
Are climatic / hydrologic conditions on the site typical f					
Are Vegetation, Soil, or Hydrology significant				Circumstances" present?	
Are Vegetation, Soil, or Hydrology naturally p			-	any answers in Remarks.	
SUMMARY OF FINDINGS – Attach site map		sampling po	Int locati	ons, transects, impo	rtant features, etc.
Hydrophytic Vegetation Present? Yes 🛛 No		Is the Sar	npled Area	a	
Hydric Soils Present? Yes No		within a V		Yes No	\boxtimes
Wetland Hydrology Present? Yes No Remarks: This test plot was located within Parcel #24		outh of Wotland		actation in this tast plat of	onsisted of just horbacoous
species. This test plot did not meet all wetland indicate					Sisisted of just herbaceous
				a of being wettand.	
VEGETATION – Use scientific names of pla	ants.				
	Absolute	Dominant	Indicator	Dominance Test Work	sheet
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status		
1.	%			Number of Dominant Sp	pecies 1 (A)
2.	%			That Are OBL, FACW, o	or FAC:
3.	%				
4.	%			Total Number of Domin	
50% = 20% =	%	=Total Cover		Species Across All Stra	ta:
				Percent of Dominant Sp	acies
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW, o	
1	%			Prevalence Index worl	
2.	%			Total % Cover of:	
3.	%			OBL species	x 1=
4.	%			FACW species	x 2=
5	%			FAC species	x 3=
50% = 20% =	%	=Total Cover		FACU species	x 4=
Herb Stratum (Plot size: <u>5</u> ft radius)	000/		540	UPL species	x 5= (D)
1. <u>Poa annua.</u>	80%	yes	FAC	Column Totals:	(A) (B)
2. Leucanthemum vulgare	15%	no	FACU		Index = B/A=
 <u>Trifolium repens</u> Plantago major 	<u> 10% </u> 10%	no	FAC FAC	Hydrophytic Vegetatio	r Hydrophytic Vegetation
5	<u> 10 %</u>	no	FAC	\boxtimes 2 – Dominance Te	
6	%			3 - Prevalence Inc	
7.	%	·			Adaptations ¹ (Provide
8.	0/				Remarks or on a separate
9.	0/			sheet)	
10.	%			5 - Wetland Non-	√ascular Plants¹
11.	%				
50% = 58 $20% = 23$	115%	=Total Cover		Problematic Hydro	ophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: <u>15</u> ft radius)					
1	%				I and wetland hydrology
2	%			must be present, unless	s disturbed or problematic.
50% = 20% =	%	=Total Cover		the beauties de	
				Hydrophytic Vegetation	
				Vegetation Present?	Yes⊠ No⊡
% Bare Ground in Herb Stratum <u>0%</u>					
Remarks:				I.	

0-7 10YR 2/2 100% % Silty Loam 7-16 10YR 5/8 100% % Silty Loam 9% % % Silty Loam 17type: C=Concentration D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: (Applicable to all LRs, unless otherwise noted.) Indicators for Problematic Hydric Soils 1 Hydrogen Sulfide (A1) Loamy Gleyed	Pore Lining, M=Matrix matic Hydric Soils (TF2) urface (TF12) marks)
Color (moist) % Color (moist) % Type1 Loc2 Texture Remark 0-7 10YR 2/2 100% % % Silty Loam Silty Loat Silty Loat Silty	Pore Lining, M=Matrix matic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
Color (moist) % Color (moist) % Type1 Loc2 Texture Remark 0-7 10YR 2/2 100% % % Silty Loam Silty Loat Silty Loat Silty	Pore Lining, M=Matrix matic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
7-16 10YR 5/8 100% % % Silty Loam % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % % ************************************	natic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
	natic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
Image: Solution of the second seco	natic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
	natic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
Image: Solution of the system of the syst	natic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
1 1	natic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
	natic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils Histosal (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F3) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) ³ Indicators of hydrophytic vegetation and Sandy Mucky Minerals (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic Type: Redox Depressions (F8) Hydric Soil Present? Yes	natic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils Histosal (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Indicators of hydrophytic vegetation and Sandy Mucky Minerals (S1) Depleted Dark Surface (F6) 3Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic Type: Depth (inches): Yes	natic Hydric Soils (TF2) urface (TF12) marks) ic vegetation and hust be present,
Histosal (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Indicators of hydrophytic vegetation and Wetland hydrology must be present, unless disturbed or problematic Sandy Gleyed Matrix (S4) Redox Depressions (F8) Wetland hydrology must be present, unless disturbed or problematic Type: Type: Depth (inches): Hydric Soil Present? Yes	(TF2) urface (TF12) marks) ic vegetation and hust be present,
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Image: Completed Dark Surface (F6) Sandy Mucky Minerals (S1) Depleted Dark Surface (F7) Wetland hydrology must be present, unless disturbed or problematic Restrictive Layer (if present): Type: Hydric Soil Present? Yes _ Ne	urface (TF12) marks) ic vegetation and hust be present,
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Minerals (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes	marks) ic vegetation and hust be present,
□ Depleted Below Dark Surface (A11) □ Depleted Matrix (F3) □ Thick Dark Surface (A12) □ Redox Dark Surface (F6) □ Sandy Mucky Minerals (S1) □ Depleted Dark Surface (F7) □ Sandy Gleyed Matrix (S4) □ Redox Depressions (F8) Restrictive Layer (if present): Type: □ Depth (inches): Hydric Soil Present? Yes □ Net	ic vegetation and hust be present,
□ Thick Dark Surface (A12) □ Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Wetland hydrology must be present, unless disturbed or problematic □ Sandy Mucky Minerals (S1) □ Depleted Dark Surface (F7) Wetland hydrology must be present, unless disturbed or problematic □ Sandy Gleyed Matrix (S4) □ Redox Depressions (F8) Wetland hydrology must be present, unless disturbed or problematic ■ Restrictive Layer (if present): □ Type: □ Depth (inches): Hydric Soil Present? Yes □ Net	nust be present,
Sandy Mucky Minerals (S1) Depleted Dark Surface (F7) Wetland hydrology must be present, unless disturbed or problematic Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic Restrictive Layer (if present): Hydric Soil Present? Yes Net	nust be present,
Image: Sandy Gleyed Matrix (S4) Image: Redox Depressions (F8) Image: Restrictive Layer (if present): Image: Redox Depressions (F8) Type: Image: Type: Type: Image: Type: Type: Image: Type: Type: Type: Image: Type: Ty	
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes	problematic
Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes	
Type: Depth (inches): Yes No	
Depth (inches): Hydric Soil Present? Yes No	
	Yes 🗌 No 🖂
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators: Primary Indicators (min. of one required; check all that apply) Secondary Indicators (2 or more red)	
Secondary Indicators (2 or more red	
Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, Water-Stained Leaves (B9) (ML	icators (2 or more required)
High Water Table (A2) and 4B) 4A, and 4B)	· · ·
□ Saturation (A3) □ Salt Crust (B11) □ Drainage Patterns (B10)	ned Leaves (B9) (MLRA 1, 2,
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2)	ned Leaves (B9) (MLRA 1, 2, 4B)
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imag	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10)
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2)	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2)
Algal Mat or crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3)	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9)
	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2)
□ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC Neutral Test (D5)	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3)
□ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC Neutral Test (D5) □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A)	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5)
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A)	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A)
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7)	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A)
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8)	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A)
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Field State Stat	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) □ Field Observations: □ Surface Water Present? Yes □ No ⊠ Depth (Inches): □	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) □ Field Observations: □ Surface Water Present? Yes □ No ⊠ Depth (Inches): □ Water Table Present? Yes □ No ⊠ Depth (Inches): Wetland Hydrology Present?	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) □ Surface Water Present? Yes □ No ⊠ Depth (Inches):	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) □ Field Observations: □ Surface Water Present? Yes □ No ⊠ Depth (Inches): □ Water Table Present? Yes □ No ⊠ Depth (Inches): □	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) □ Field Observations: □ Surface Water Present? Yes □ No ⊠ Depth (Inches): □ Water Table Present? Yes □ No ⊠ Depth (Inches): □ Saturation Present? Yes □ No ⊠ Depth (Inches): Yes □ (Includes Capillary fringe) Yes □ Yes □ Yes □	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) □ Field Observations: □ Surface Water Present? Yes □ No ⊠ Depth (Inches): □ Water Table Present? Yes □ No ⊠ Depth (Inches): □ Saturation Present? Yes □ No ⊠ Depth (Inches): Yes □ (Includes Capillary fringe) Yes □ Yes □ Yes □	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) ■ Field Observations: ■ Surface Water Present? Yes □ No ⊠ Depth (Inches): ■ Water Table Present? Yes □ No ⊠ Depth (Inches): ■ Saturation Present? Yes □ No ⊠ Depth (Inches): ■ (Includes Capillary fringe) Yes □ No ⊠ Depth (Inches): ■	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) □ Field Observations: □ Surface Water Present? Yes □ No ⊠ Depth (Inches): □ Water Table Present? Yes □ No ⊠ Depth (Inches): □ Saturation Present? Yes □ No ⊠ Depth (Inches): Yes □ (Includes Capillary fringe) Yes □ Yes □ Yes □	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) □ Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) Field Observations: □ □ Frost-Heave Hummocks (D7) Surface Water Present? Yes □ No ⊠ Depth (Inches): □ Water Table Present? Yes □ No ⊠ Depth (Inches): □ Saturation Present? Yes □ No ⊠ Depth (Inches): □ (Includes Capillary fringe) □ Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes □	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) □ No □ Depth (Inches): □ Field Observations:	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) □ No □ Depth (Inches): □ Field Observations:	ned Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR A) e Hummocks (D7)

Project/Site: Kingfisher		City/Cou	unty: King		Date: 3/9/22
Applicant/Owner: Dudek		0	State: V	VA Sampling	Point: TP10
Investigator(s): McGraw, Michele; Allison, Andrew		Section	n, Townshi	p, Range: S24 T22 R05	01 (01) 0 (50)
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Concave	Slope (%): <u>8-15%</u>
Subregion (LRR): A2	Lat: 47.380		_Long: <u>-12</u>	2.1215776 Datum NWI classification: None	: NAD83
Soil Map Unit Name: <u>Alderwood gravelly sandy loam</u> Are climatic / hydrologic conditions on the site typical					
Are Vegetation, Soil, or Hydrology significan				Circumstances" present? Yes⊠ N	
Are Vegetation, Soil, or Hydrology asymican Are Vegetation, Soil, or Hydrology naturally				any answers in Remarks.)	
	-		-		-4
SUMMARY OF FINDINGS – Attach site map		ampling po	Int locati	ons, transects, important fe	eatures, etc.
Hydrophytic Vegetation Present? Yes 🛛 No		Is the Sar	mpled Area	3	
Hydric Soils Present? Yes 🛛 No		within a V	Netland?	Yes⊠ No⊡	
Wetland Hydrology Present? Yes X No					
Remarks: This test plot was located within Parcel #2				etation in this test plot consisted of	just herbaceous
species. This test plot met all three indicators, therefo	re it meets the	criteria of bein	g wetland.		
VEGETATION – Use scientific names of pla	ants.				
	Absolute	Dominant	Indicator	Dominance Test Worksheet	
<u>Tree Stratum</u> (Plot size: <u>30</u> ft radius)	% Cover	Species?	Status		
1	%			Number of Dominant Species	<u> </u>
2	%			That Are OBL, FACW, or FAC:	
3	%			Total Number of Deminent	
4	%			Total Number of Dominant	<u> </u>
50% = 20% =	%	=Total Cover		Species Across All Strata:	
				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: <u>15 ft.</u> radius)				That Are OBL, FACW, or FAC	100 (A/B)
1.	%			Prevalence Index worksheet	<u>100</u> (772)
0	0/			Total % Cover of:	Multiply by:
3.	<u> </u>			OBL species	x 1=
4.	%			FACW species	x 2=
5.	%			FAC species	
50% = 20% =		=Total Cover		FACU species	x 4=
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5=
1. Poa annua	90%	yes	FAC	Column Totals:	x 3= x 4= x 5= (A)(B)
2. Hypochaeris radicata	15%	no	FACU	Prevalence Index =	
3. Vicia sativa	10%	no	UPL	Hydrophytic Vegetation Indica	
4. Ranunculus repens	10%	no	FAC	1 – Rapid Test for Hydroph	
5.	<u> </u>			\boxtimes 2 – Dominance Test is >50	
6.	<u> </u>			\square 3 - Prevalence Index is \leq 3.	
7.	<u> </u>			4 - Morphological Adaptatio	
8.	<u> </u>			supporting data in Remark	
9.	%			sheet)	•
10.	%			5 - Wetland Non-Vascular	Plants ¹
11.	%				
50% = 63 20% = 25	125%	=Total Cover		Problematic Hydrophytic V	egetation ¹ (Explain)
Woody Vine Stratum (Plot size: <u>15</u> ft radius)					0 (1)
1 ,	%			¹ Indicators of hydric soil and wet	land hydrology
2.	%			must be present, unless disturbe	
50% = 20% =	%	=Total Cover			ł
50 % = 20 % =	·			Hydrophytic	
				Vegetation	
				Present?	Yes 🛛 No 🗌
% Bare Ground in Herb Stratum 0%					
Remarks:					

Profile Description: (Describe to the depth	needed to docur	nent the ind	licator or confi	irm the	absence of indicators.)	
Depth Matrix		Redox Feat	Ires			
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10 10YR 4/2 95%	10YR 4/6	5%	<u> </u>	M	Silty Loam	
10-16 10YR 5/6 100%		%			Silty Loam	
<u> </u>		%				
<u> </u>		%				
%		%				
%		%				
%		%				
%		%				
¹ Type: C=Concentration, D=Depletion, RM=				d Grain		
Hydric Soil Indicators: (Applicable to all L			.)		Indicators for Problema	tic Hydric Soils
Histosal (A1)	Sandy Redo				2 cm Muck (A10)	-0)
Histic Epipedon (A2)	Stripped Mat				Red Parent Material (TI	
Black Histic (A3)	Loamy Muck			(A 1)	Very Shallow Dark Surf	
Hydrogen Sulfide (A4)	Loamy Gleye)		Other (Explain in Rema	irks)
Depleted Below Dark Surface (A11)	Depleted Mat					
Thick Dark Surface (A12)	Redox Dark S	Surface (F6)			³ Indicators of hydrophytic v	
Sandy Mucky Minerals (S1)	Depleted Dar	k Surface (F	7)		Wetland hydrology mus	
Sandy Gleyed Matrix (S4)	Redox Depre	ssions (F8)			unless disturbed or pro	blematic
Restrictive Layer (if present):						
Туре:						
Depth (inches):				Hy	dric Soil Present?	Yes⊠ No⊡
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:	li all that ann li					
Primary Indicators (min. of one required; chec	sk all that apply)				Secondary Indica	tors (2 or more required)
Surface Water (A1)	Water-Staine	d Leaves (B	9) (except MLF	RA 1, 2,	4A, 🗌 Water-Stained	Leaves (B9) (MLRA 1, 2 ,
High Water Table (A2)	and 4B)				4A, and 4I	3)
Saturation (A3)	Salt Crust (B	11)			Drainage Patt	erns (B10)
Water Marks (B1)	Aquatic Inver	tebrates (B1	3)		Dry-Season W	/ater Table (C2)
Sediment Deposits (B2)	Hydrogen Su				Saturation Vis	ible on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhiz			ts (C3)	🖾 Geomorphic F	
Algal Mat or crust (B4)	Presence of I	•	• •		Shallow Aquita	
☐ Iron Deposits (B5)	Recent Iron F		. ,	:)	FAC Neutral T	
Surface Soil Cracks (B6)	Stunted or St					ounds (D6) (LRR A)
_ 、 ,)	Frost-Heave H	
□ Inundation Visible on Aerial Imagery (B7)	Other (Explai	n in Remark	5)		I FIOSI-Heave F	iummocks (D7)
Sparsely Vegetated Concave Surface (B8)					· · · · ·
Field Observations:		th (Inchas);				
Surface Water Present? Yes Water Table Present? Yes Yes Xes		th (Inches): th (Inches):	<u>0</u>	Mat	land Hydrology Present?	
Saturation Present? Yes	= '	· · ·	-	wei	land Hydrology Fresent?	Yes 🖂 No 🗌
(Includes Capillary fringe)	по рер	th (Inches):	<u>1</u>			
Describe Recorded Data (Stream gauge, mor	nitoring well aerial	photos, prev	ious inspection	ns), if av	vailable:	
		r		,		
Remarks:						
rtomanto.						

Project/Site: Kingfisher Applicant/Owner: Dudek		City/Co	unty: <u>King</u> State:V		ling Date: <u>3/9/22</u> ing Point: TP11
Investigator(s): McGraw, Michele; Allison, Andrew		Sectio		p, Range: S24 T22 R05	
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Convex	Slope (%): 8-15 %
Subregion (LRR): A2	Lat: 47.380				tum: NAD83
Soil Map Unit Name: Alderwood gravelly sandy loam				NWI classification: None	
Are climatic / hydrologic conditions on the site typical					
Are Vegetation, Soil, or Hydrology significant				Circumstances" present? Yes⊠] No□
Are Vegetation, Soil, or Hydrology naturally				any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma					t features, etc.
Hydrophytic Vegetation Present? Yes No	\boxtimes	la tha Sar	npled Area	-	
Hydric Soils Present? Yes 🛛 No		within a W		⊿ Yes⊡ No⊠	
Wetland Hydrology Present? Yes No					
Remarks: This test plot was located within Parcel #2					ed of just herbaceous
species. This test plot did not meet all wetland indica	tors, therefore	it does not mee	et the criteri	a of being wetland.	
VEGETATION – Use scientific names of pl		Deminent	la dia ata a	Deminence Test Workshop	4
Tree Stratum (Plot size:30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Workshee	t
1.	<u>% 00001</u>	Opecies:	Olalus	Number of Dominant Species	5 1 (A)
2	%	·		That Are OBL, FACW, or FAC	
3. 4.	<u> </u>	·		Total Number of Dominant	2 (B)
50% = 20% =	<u> </u>	=Total Cover		Species Across All Strata:	<u> </u>
50 % = 20 % =	/0				
				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW, or FAC	
1.	%			Prevalence Index workshee	
2	%			Total % Cover of:	Multiply by:
3	<u>%</u>	·		OBL species	x 1=
4	%			FACW species	x 2=
5.	%	Tatal Oaura		FAC species	x 3=
50% = 20% =	%	=Total Cover		FACU species UPL species	x 4=
<u>Herb Stratum</u> (Plot size: <u>5</u> ft radius) 1. <i>Poa anuua</i>	609/		FAC	Column Totals:	X 5= (B)
	60%	yes	FAC		(A) (B)
	30%	yes		Prevalence Index	
3. <u>Leucanthemum vulgare</u>	20%	no	FACU	Hydrophytic Vegetation Inc	
4 5	<u>%</u> %	·		1 – Rapid Test for Hydr 2 – Dominance Test is	
6.	<u>%</u>	·		3 - Prevalence Index is	
	<u>%</u> %			4 - Morphological Adap	
7. 8.	<u> </u>	·		supporting data in Rem	
9.	<u> </u>	·		sheet)	
10.	<u> </u>			5 - Wetland Non-Vascu	lar Plants ¹
11.	<u> </u>				
50% = 55 20% = 22	110%	=Total Cover		Problematic Hydrophyt	c Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: <u>15</u> ft radius)	11070				
	%			¹ Indicators of hydric soil and	wetland hydrology
2.	<u> </u>	·		must be present, unless distu	
	%	=Total Cover			
50% = 20% =	/0			Hydrophytic	
				Vegetation	
				Present?	Yes⊡ No⊠
% Bare Ground in Herb Stratum 0%					
Remarks:				•	

SOIL								Sampling Point: TP11
Profile D	escription: (Desc	ribe to the dept	h needed to docu	ment the ind	icator or con	firm the a	absence of indicators.)	
Depth	Matrix	ĸ		Redox Featu	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-11	10YR 3/2	100%		%			Silty Loam	
11-16	10YR 5/2	97%	10YR 5/8	3%	C	Μ	Silty Loam	
		<u> </u>		<u>%</u> %				
		<u> </u>		<u>~</u> <u>%</u>				
		<u> </u>		<u> </u>				
		<u>%</u>		%	,			
		%		%				
			Reduced Matrix,			nd Grains	s. ² Location: PL=Pore	Lining, M=Matrix
		pplicable to all L	RRs, unless oth)		Indicators for Problematic	: Hydric Soils
Histos			Sandy Redo				2 cm Muck (A10)	N N
	Epipedon (A2)		Stripped Ma				Red Parent Material (TF2	
	Histic (A3)		Loamy Muc			-	Very Shallow Dark Surfac	
	gen Sulfide (A4)	unface (A11)	Loamy Gley				Other (Explain in Remark	5)
	ted Below Dark Su	. ,	Depleted Ma	. ,			3 Indiantara of hydrophytic yra	notation and
	Dark Surface (A12	,		. ,	7)		³ Indicators of hydrophytic veg Wetland hydrology must I	
-	Mucky Minerals (Gleved Matrix (S				()		unless disturbed or proble	
- ,	,	,	🗌 Redox Depr	essions (F8)				
Restrictiv	ve Layer (if prese	ent):						
Туре:								
Depth (ind	ches):					Нус	dric Soil Present?	Yes⊠ No⊡
Remarks:								
IYDROL		-						
	Hydrology Indicators (min. of o		ok all that apply)					(2)
Filliary II		She required, che						rs (2 or more required)
	e Water (A1)		Water-Stain) (except ML	RA 1, 2,		eaves (B9) (MLRA 1, 2,
	Vater Table (A2)		and 4B				4A, and 4B)	
Satura	. ,		Salt Crust (,			Drainage Patter	· · ·
	Marks (B1)		Aquatic Inve	•	,		Dry-Season Wat	
	ent Deposits (B2)		Hydrogen S					e on Aerial Imagery (C9
	eposits (B3)		Oxidized Rh	-		ots (C3)	Geomorphic Pos	
-	Mat or crust (B4)		Presence of		. ,		Shallow Aquitare	
	eposits (B5)		Recent Iron		•	,	FAC Neutral Tes	. ,
	e Soil Cracks (B6		Stunted or S			A)	Raised Ant Mou	
	ation Visible on Ae			ain in Remarks	5)		Frost-Heave Hu	mmocks (D7)
	ely Vegetated Cor	icave Surface (B8	3)			-		
	servations: Vater Present?			nth (Inchoc):				
	ble Present?	Yes 🗋 Yes ⊠		pth (Inches): _ pth (Inches): ´	14	Wotl	and Hydrology Present?	
	n Present?	Yes 🛛		pth (Inches): <u></u>		Wet	and right ology riesent:	Yes 🗌 No 🖂
	Capillary fringe)			pur (monoo): _	10			
		stream gauge, mo	onitoring well, aeria	al photos, prev	ious inspectio	ons), if ava	ailable:	
Remarks:	Although water ta	able and saturatic	on were present, th	ney were prese	ent too deep ir	n the soil	profile to be indicative of wet	land hydrology.

Project/Site: Kingfisher		City/Cou	unty: King	Sa	ampling Date: 3/9/22
Applicant/Owner: Dudek			State: V	VA Sa	ampling Point: TP12
Investigator(s): McGraw, Michele; Allison, Andrew				p, Range: <u>S24 T22 R05</u>	
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Convex	Slope (%): <u>8-15 %</u>
Subregion (LRR): A2	Lat: 47.380			2.1213233	Datum: NAD83
Soil Map Unit Name: <u>Alderwood gravelly sandy loam</u> ,	8-15 percent			NWI classification: None	
Are climatic / hydrologic conditions on the site typical f Are Vegetation, Soil, or Hydrology significant				r no, explain Remarks.) Circumstances" present? Ye	
Are Vegetation, Soil, or Hydrology asymicant				any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map		-	-		
Hydrophytic Vegetation Present? Yes 🛛 No				ons, transcets, impor	
Hydric Soils Present? Yes No			npled Area		
Wetland Hydrology Present? Yes X No		within a V	Vetland?	Yes No	3
Remarks: This test plot was located within Parcel #24		orth of Wetland	F. The ve	getation in this test plot con	sisted of just herbaceous
species. This test plot did not meet all wetland indicate					
VECETATION Lies scientific names of nig	nto				
VEGETATION – Use scientific names of pla				1	
	Absolute	Dominant	Indicator	Dominance Test Works	heet
Tree Stratum (Plot size: <u>30</u> ft radius)	% Cover	Species?	Status	Number of Deminent Cre	
1	<u>%</u>			Number of Dominant Spe That Are OBL, FACW, or	
2	<u>%</u>				1 AO.
3	<u> % </u> %			Total Number of Dominar	nt 1 (B)
50% = <u>20%</u> = <u>-</u>		=Total Cover		Species Across All Strata	a: (D)
5078 - <u> </u>	/0				
Condina (Ohmik Otrativas (Distaines 45 ft realise)				Percent of Dominant Spe	
Sapling/Shrub Stratum (Plot size: <u>15</u> ft. radius)	0/			That Are OBL, FACW, or Prevalence Index works	
1	<u> % </u>			Total % Cover of:	Multiply by:
2	%			OBL species	x 1=
4.	<u> </u>			FACW species	x 2=
5.	%				x 3=
50% = 20% =	%	=Total Cover		FACU species	x 4=
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5=
1. Poa annua.	60%	yes	FAC	Column Totals:	(A) (B)
2. Leucanthemum vulgare	20%	no	FACU	Prevalence li	
3. <u>Plantago major</u>	20%	no	FAC	Hydrophytic Vegetation	
4. <u>Hypochaeris radicata</u>	<u>20%</u> 10%	no	FACU FAC	\square 1 – Rapid Test for \square \square 2 – Dominance Test	Hydrophytic Vegetation
5. <u>Trifolium repens</u> 6.	<u> 10% </u>	no	FAC	\square 3 - Prevalence Inde	
7	<u>%</u>			4 - Morphological A	
7. 8.					Remarks or on a separate
9.				sheet)	·
10.	%			🔲 5 - Wetland Non-Va	ascular Plants ¹
11.	%				
$50\% = \underline{60} \ 20\% = \underline{24}$	120%	=Total Cover		Problematic Hydrop	phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: <u>15</u> ft radius)				4	
1	<u>%</u>			¹ Indicators of hydric soil a	
2	<u>%</u>	=Total Cover		must be present, unless of	disturbed or problematic.
50% = 20% =	%	= rotar Cover		Hydrophytic	
				Vegetation	
				Present?	Yes⊠ No⊡
% Bare Ground in Herb Stratum 0%					
Remarks:					

SOIL							Sampling Point: <u>TP12</u>
Profile Description: (Describ	e to the depth	needed to doc	ument the ind	icator or confi	rm the a	absence of indicators.)	
Depth Matrix			Redox Feat	IFOR			
(inches) Color (moist)	%	Color (moist)	%		Loc ²	Texture	Remarks
0-9 10YR 3/2	100%		%			Silty Loam	
9-19 10YR 6/3	100%		%			Silty Loam	
	%		%				
	%		%				
	%		<u>%</u>				
·	%		<u>%</u>				
	<u>%</u> %			·			
¹ Type: C=Concentration, D=I		Poducod Matrix		or Costod San	d Grains	² Location: PL=Pore	Lining M-Matrix
Hydric Soil Indicators: (Appli						Indicators for Problemati	
Histosal (A1)		Sandy Red		,]	2 cm Muck (A10)	
Histic Epipedon (A2)		Stripped Ma				Red Parent Material (TF2	2)
Black Histic (A3)		Loamy Muc	ky Mineral (F1) (except MLR	A 1) [Very Shallow Dark Surfa	ce (TF12)
Hydrogen Sulfide (A4)		Loamy Gle			-	Other (Explain in Remark	(S)
Depleted Below Dark Surfa	ce (A11)	Depleted M					,
Thick Dark Surface (A12)	()	Redox Darl	. ,		3	Indicators of hydrophytic ve	getation and
Sandy Mucky Minerals (S1))	Depleted D	. ,	7)		Wetland hydrology must	be present,
Sandy Gleyed Matrix (S4)		Redox Dep		,		unless disturbed or probl	ematic
Restrictive Layer (if present)							
	•						
Туре:							
Depth (inches):					Hyd	ric Soil Present?	Yes No 🛛
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicator							
Primary Indicators (min. of one	required; chec	k all that apply)				Secondary Indicate	ors (2 or more required)
Surface Water (A1)		Water-Stair	ned Leaves (B) (except MLR	RA 1. 2. 4	4A.	_eaves (B9) (MLRA 1, 2,
High Water Table (A2)		and 4B			, ,	4A, and 4B)	
Saturation (A3)		Salt Crust (Drainage Patter	
Water Marks (B1)		Aquatic Inv	,	3)		Dry-Season Wa	. ,
Sediment Deposits (B2)		Hydrogen S	•	,		-	le on Aerial Imagery (C9)
Drift Deposits (B3)				ong Living Roo	ts (C3)	Geomorphic Po	••••
Algal Mat or crust (B4)		Presence o	•	• •	()	Shallow Aquitar	. ,
☐ Iron Deposits (B5)				Tilled Soils (C6))	FAC Neutral Te	. ,
Surface Soil Cracks (B6)				s (D1) (LRR A)	,	Raised Ant Mou	
Inundation Visible on Aerial	Imagery (B7)	Other (Expl				Frost-Heave Hu	
Sparsely Vegetated Concav				5)			
Field Observations:		<u>.</u>			1		
	es 🗌	No 🖂 🛛 De	pth (Inches):				
	es 🖂		pth (Inches):	2	Wetla	and Hydrology Present?	
	es 🖾		pth (Inches):				Yes 🖂 No 🗌
(Includes Capillary fringe)			1 (/	_	İ		
Describe Recorded Data (Strea	am gauge, mon	itoring well, aeri	al photos, prev	vious inspection	ns), if ava	ailable:	
Remarks:							
1							

Project/Site: Kingfisher		City/Co	unty: King		g Date: <u>3/9/22</u>
Applicant/Owner: Dudek			State: V	VA Sampling	g Point: TP13
Investigator(s): McGraw, Michele; Allison, Andrew		Sectio	n, Townshi	p, Range: S24 T22 R05	
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Concave	Slope (%): <u>8-15 %</u>
Subregion (LRR): A2	Lat: 47.380				n: NAD83
Soil Map Unit Name: Alderwood gravelly sandy loan				NWI classification: None	
Are climatic / hydrologic conditions on the site typica	I for this time of	year? Yes⊠	No (I	f no, explain Remarks.)	
Are Vegetation, Soil, or Hydrology significant	ntly disturbed?	Are	e "Normal (Circumstances" present? Yes 🛛	No
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If need	ed, explain	any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	n showing s	sampling po	int locati	ons, transects, important f	eatures, etc.
					outur 00, 010.
		Is the Sar	npled Area	a	
		within a V	Vetland?	Yes⊠ No⊡	
Wetland Hydrology Present? Yes 🛛 No		ith in Mathematic	tation in this tast plat someistad of	in the sheet state
Remarks: This test plot was located within Parcel #					just nerbaceous
species. This test plot met all three indicators, theref	ore it meets the	e criteria or bein	g wettand.		
VEGETATION – Use scientific names of p	lants.				
	Absolute	Dominant	Indicator	Dominance Test Worksheet	
Tree Stratum (Plot size: <u>30</u> ft radius)	% Cover	Species?	Status		
1.	%		0.0.00	Number of Dominant Species	3 (A)
2	%			That Are OBL, FACW, or FAC:	<u> </u>
0	%	·			
3 4.	%			Total Number of Dominant	3 (B)
	%	Tatal Osuar		Species Across All Strata:	<u> </u>
50% = 20% =	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	=Total Cover		'	
				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW, or FAC	100 (A/B)
1.	%			Prevalence Index worksheet	
2.	%	·		Total % Cover of:	Multiply by:
3.	%			OBL species	x 1=
4.	%	·		FACW species	x 2=
5.	%	·		FAC species	
50% = 20% =	%	=Total Cover		FACU species	x 3= x 4= x 5= (A) (B)
Herb Stratum (Plot size: 5 ft radius)	,0			UPL species	x 5=
1. Poa annua	50%	yes	FAC	Column Totals:	(A) (B)
2. Ranunculus repens	30%	yes	FAC	Prevalence Index =	
3. Juncus effusus	30%	·	FACW	Hydrophytic Vegetation Indica	
 <u>Juncus enusus</u> Phalaris arundinacea 	<u>30%</u> 10%	yes	FACW		
4. <u>Phalans arundinacea</u> 5.		no	FACW	1 – Rapid Test for Hydrop	
	%	·		_ 2 – Dominance Test is >5	• · · •
6.	%			3 - Prevalence Index is ≤3	
7	%			4 - Morphological Adaptat	
8	%	·		supporting data in Remark	ks of on a separate
9	%	·		sheet)	
10	%			5 - Wetland Non-Vascular	Plants
11.	%				
$50\% = \underline{60}$ $20\% = \underline{24}$	120%	=Total Cover		Problematic Hydrophytic \	Vegetation ⁺ (Explain)
Woody Vine Stratum (Plot size: <u>15</u> ft radius)					
1	%			¹ Indicators of hydric soil and we	
2	%			must be present, unless disturb	ed or problematic.
50% = 20% =	%	=Total Cover			
				Hydrophytic	
				Vegetation	
0/ Dana Oracuratia Urati Otastura 00/				Present?	Yes 🛛 No 🗌
% Bare Ground in Herb Stratum 0%					
Remarks:					

SOIL	occulations (Dec	wike to the day	the mandard to door	ment the ind		(i	abaanaa of indiactory)	Sampling Point: TP13
Profile D	escription: (Desc	cribe to the dep	oth needed to docu	ment the ind	icator or con	firm the	absence of indicators.)	
Depth	Matri			Redox Featu		-	_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
<u> </u>	10YR 3/2 10YR 3/2	<u> 100% </u>	10YR 5/8	<u>%</u> 5%		М	Silty Loam	
0-10	101K 3/2	<u> </u>	101K 5/6	<u> </u>	<u> </u>	IVI	Silty Loam	
		- <u> </u>		%				
		<u>%</u>		%	·			
		%		%				
		%		%				
		%		%				
			M=Reduced Matrix,			nd Grain		
		pplicable to all	LRRs, unless othe)		Indicators for Problematic	c Hydric Soils
Histos			Sandy Redo				2 cm Muck (A10) Red Parent Material (TF2	2)
	Epipedon (A2)							
	Histic (A3)		Loamy Muck			KA 1)	Very Shallow Dark Surface	. ,
-	gen Sulfide (A4)		Loamy Gley				Other (Explain in Remark	S)
•	ted Below Dark Su	. ,	Depleted Ma	. ,			3 adjactors of budrophytic ve	actation and
	Dark Surface (A12	,	Redox Dark	. ,	7)		³ Indicators of hydrophytic ve Wetland hydrology must	
-	Mucky Minerals			ark Surface (F	()		unless disturbed or probl	
	Gleyed Matrix (S	,	🗌 Redox Depr	essions (F8)				
Restrictiv	ve Layer (if prese	ent):						
Tunoi								
Type: Depth (in	ches).					Hv	dric Soil Present?	Yes⊠ No⊡
Remarks:								
	Hydrology Indica							
Primary II	ndicators (min. of	one requirea; cr	neck all that apply)				Secondary Indicato	ors (2 or more required)
	e Water (A1) Vater Table (A2)		Water-Stain and 4B)) (except ML	RA 1, 2,	4A, Uvater-Stained L 4A, and 4B)	_eaves (B9) (MLRA 1, 2,
🛛 Satura	tion (A3)		Salt Crust (E	311)			Drainage Patter	ns (B10)
U Water	Marks (B1)		Aquatic Inve	rtebrates (B1	3)		🗌 Dry-Season Wa	ter Table (C2)
Sedim	ent Deposits (B2)		Hydrogen S	ulfide Odor (C	1)		Saturation Visib	le on Aerial Imagery (C9
🗌 Drift D	eposits (B3)		Oxidized Rh	izospheres al	ong Living Ro	ots (C3)	🗌 Geomorphic Po	sition (D2)
🗌 Algal I	Mat or crust (B4)		Presence of	Reduced Iron	(C4)		🗌 Shallow Aquitar	d (D3)
	eposits (B5)		Recent Iron		•	,	FAC Neutral Te	
	e Soil Cracks (B6		Stunted or S			()	🗌 Raised Ant Mou	
🗌 Inunda	ation Visible on Ae	erial Imagery (B	7) 🗌 Other (Expla	ain in Remarks	3)		Frost-Heave Hu	mmocks (D7)
	ely Vegetated Cor	ncave Surface (I	38)					
	servations:	_	_					
	Vater Present?	Yes 🛛		oth (Inches):				
	ble Present? n Present?	Yes ⊠ Xee ⊠		oth (Inches): (Wet	land Hydrology Present?	Yes 🖂 No 🗌
	Capillary fringe)	Yes 🛛	No 🗌 🛛 Dep	oth (Inches): (<u>,</u>	l		
		Stream daude, n	nonitoring well, aeria	al photos, prev	ious inspectio	ns), if av	vailable:	
	X	5 5 7	5 /	1 /1	·	,,		
Remarks	TP13 was inunda	ated with 1" of w	ater above ground s	surface.				

Project/Site: Kingfisher		City/Cou	unty: <u>King</u>	Sampling Date: 3/9/22
Applicant/Owner: Dudek Investigator(s): McGraw, Michele; Allison, Andrew			State: V	
Landform (hillslope, terrace, etc.): Terrace				p, Range: <u>S24 T22 R05</u> privex, none): <u>Convex</u> Slope (%):8-15
Subregion (LRR): A2	Lat: 47.380			2.1211538 Datum: NAD83
Soil Map Unit Name: <u>Alderwood gravelly sandy loam</u>	. 8-15 percent	slopes		NWI classification: None
Are climatic / hydrologic conditions on the site typical	for this time of	vear? Yes	No (I	
Are Vegetation, Soil, or Hydrology significant				Circumstances" present? Yes⊠ No⊡
Are Vegetation, Soil, or Hydrology naturally		(If need	ed, explain	any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site may	o showing s	ampling po	int locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes I No Hydric Soils Present? Yes No			npled Area	a
Wetland Hydrology Present? Yes No				Yes ── No⊠
				e vegetation in this test plot consisted of just herbaceous
species. This test plot did not meet all wetland indicat	ors, therefore i	it does not mee	t the criter	a of being wetland.
VEGETATION – Use scientific names of pla	ants			
	Absolute	Dominant	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: <u>30</u> ft radius)	% Cover	Species?	Status	Number of Dominant Species
1	%	·		Number of Dominant Species 2 (A) That Are OBL, FACW, or FAC:
2	<u>%</u>			
3 4.	<u> % </u>	·		Total Number of Dominant 4 (B)
50% = 20% =	%	=Total Cover		Species Across All Strata:
30% = <u>20</u> % = <u></u>	/0			
				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: <u>15</u> ft. radius)	0/			That Are OBL, FACW, or FAC <u>50</u> (A
1	<u>%</u> %			Prevalence Index worksheet
2	<u> </u>	·		Total % Cover of: Multiply by: OBL species x 1=
4.	<u> </u>			FACW species x 2=
5.	%			FAC species x 2= x 3=
50% = 20% =	%	=Total Cover		FACU species x 4=
Herb Stratum (Plot size: 5 ft radius)				UPL species x 5=
1. <u>Poa annua</u>	40%	yes	FAC	Column Totals: (A) (I)
2. <u>Leucanthemum vulgare</u>	25%	yes	FACU	Prevalence Index = B/A=
3. <u>Plantago major</u>	25%	yes	FAC	Hydrophytic Vegetation Indicators:
4. <u>Hypochaeris radicata</u>	25%	yes	FACU	□ 1 – Rapid Test for Hydrophytic Vegetation
5	<u>%</u>	·		$\Box 2 - \text{Dominance Test is } >50\%$
6	<u>%</u> %			\square 3 - Prevalence Index is ≤3.0 ¹ \square 4 - Morphological Adaptations ¹ (Provide
7	<u> </u>	·		supporting data in Remarks or on a separate
0	<u> </u>			sheet)
10.				5 - Wetland Non-Vascular Plants ¹
11.	%			
$50\% = 58 \ 20\% = 23$	115%	=Total Cover		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 15 ft radius)				
1	%			¹ Indicators of hydric soil and wetland hydrology
2	%			must be present, unless disturbed or problematic.
50% = 20% =	%	=Total Cover		
				Hydrophytic
				Vegetation Present? Yes⊡ No⊠
% Bare Ground in Herb Stratum 0%				
Remarks:				J

SOIL								Sampling Point: <u>TP14</u>
Profile De	escription: (Desc	ribe to the dept	n needed to doc	ument the ind	licator or conf	firm the a	absence of indicators.)	
Depth	Matrix	,		Redox Feat				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-9	10YR 3/3	100%		%			Silty Loam	
9-16	10YR 5/8	100%		%			Silty Loam	
		%		%				
		<u>%</u>		%				
		<u>%</u> %		%				
		<u> </u>		%			·	
		<u> </u>		<u>%</u>				
¹ Type [·]	C=Concentration,		=Reduced Matrix		or Coated Sar	nd Grains	² Location: PL=Pore	Lining M=Matrix
	oil Indicators: (A						Indicators for Problemati	
Histos		•	Sandy Red		,		🗌 2 cm Muck (A10)	
Histic	Epipedon (A2)		Stripped M	atrix (S6)			Red Parent Material (TF2	2)
Black	Histic (A3)		🗌 Loamy Mu	cky Mineral (F1	1) (except MLF	RA 1) 🛛	Very Shallow Dark Surface	ce (TF12)
🗌 Hydrog	gen Sulfide (A4)		🗌 Loamy Gle	yed Matrix (F2)		🗌 Other (Explain in Remark	(S)
Deplet	ed Below Dark Su	Irface (A11)	Depleted N	/latrix (F3)				
Thick I	Dark Surface (A12	2)	🗌 Redox Dar	k Surface (F6)		:	³ Indicators of hydrophytic ve	
Sandy	Mucky Minerals (S1)	Depleted D	Dark Surface (F	7)		Wetland hydrology must	
Sandy	Gleyed Matrix (S	4)	🗌 Redox Dep	pressions (F8)			unless disturbed or probl	ematic
Restrictiv	ve Layer (if prese	nt):						
		,-						
Type:								
Depth (ind	ches):					Hyd	Iric Soil Present?	Yes□ No⊠
Remarks:								
HYDROL	OGY							· · · · ·
	Hydrology Indica	tors:						
	ndicators (min. of o		ck all that apply)				Secondary Indicate	ors (2 or more required)
	e Water (A1)				9) (except ML	RA 1, 2, 4		_eaves (B9) (MLRA 1, 2,
	Vater Table (A2)		and 4E	,			4A, and 4B)	
Satura	()		Salt Crust	· /	-		Drainage Patter	. ,
	Marks (B1)		-	vertebrates (B1			Dry-Season Wa	. ,
	ent Deposits (B2)			Sulfide Odor (C				le on Aerial Imagery (C9)
	eposits (B3)			•	long Living Roo	ots (C3)	Geomorphic Po	
_	Mat or crust (B4)			of Reduced Iron	. ,		Shallow Aquitar	
	eposits (B5)				Tilled Soils (C6	,	FAC Neutral Te	
	e Soil Cracks (B6)				ts (D1) (LRR A	()	Raised Ant Mou	
	ation Visible on Ae		• •	lain in Remark	s)		Frost-Heave Hu	ımmocks (D7)
	ely Vegetated Con	cave Surface (B8	3)					
	servations:							
	Vater Present?	Yes 🗌		epth (Inches):				
	ble Present?	Yes 🗌		epth (Inches):		Wetla	and Hydrology Present?	
	Present?	Yes 🗌	No 🛛 🛛 Do	epth (Inches):				Yes 🗌 No 🛛
	Capillary fringe) Recorded Data (S	tream dauge mo	nitoring well aer	ial photos prev	vious inspection	ns) if ave	ailable:	
Describe		a cam yauye, mu	all well, all	ai priotos, pier		,, ii ave		
Remarks:								

Project/Site: Kingfisher		City/Co	unty: King		Sampling Date: 3/9/22	
Applicant/Owner: Dudek			State: V		Sampling Point: TP15	
Investigator(s): McGraw, Michele; Allison, Andrew				p, Range: <u>S24 T22 R05</u>		
Landform (hillslope, terrace, etc.): Terrace				onvex, none): <u>Convex</u>	Slope (%):	8-15 %
Subregion (LRR): <u>A2</u>	Lat: 47.380			2.1212088	Datum: NAD83	
Soil Map Unit Name: Alderwood gravelly sandy loam, Are climatic / hydrologic conditions on the site typical f				NWI classification: None		
Are Vegetation, Soil, or Hydrology significant				Circumstances" present?		
Are Vegetation, Soil, or Hydrology asymicant				any answers in Remarks		
SUMMARY OF FINDINGS – Attach site map		,		•	,	
Hydrophytic Vegetation Present? Yes No						
Hydric Soils Present? Yes No			npled Area			
Wetland Hydrology Present? Yes Ves No		within a V	vetland?	Yes No	o⊠	
Remarks: This test plot was located within Parcel #24						
herbaceous species. This test plot did not meet all we	tland indicator	s, therefore it c	loes not me	eet the criteria of being w	vetland.	
VEGETATION – Use scientific names of pla	ints.					
	Absolute	Dominant	Indicator	Dominance Test Wor	rkshoot	
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status	Dominance rest wor	KSheet	
1.	<u>% 00ver</u>	Opecies:	Otatus	Number of Dominant S	Species 1	(A)
2.	<u> </u>			That Are OBL, FACW,		_ (A)
3.	%					
4.	%			Total Number of Domin		(B)
50% = 20% =	%	=Total Cover		Species Across All Str	ata:	_ 、 /
				Percent of Dominant S	Species	
Sapling/Shrub Stratum (Plot size: <u>15</u> ft. radius)				That Are OBL, FACW,		(A/B)
1.	%			Prevalence Index wo		
2.	%			Total % Cover o	f: Multiply by	<i>r</i> :
3.	%			OBL species	x 1=	_
4				FACW species	x 2=	
5	%			FAC species	x 3=	
50% = 20% =	%	=Total Cover		FACU species UPL species	x 4=	
<u>Herb Stratum</u> (Plot size: <u>5</u> ft radius) 1. <i>Poa annua</i>	50%	VOC	FAC	Column Totals:	x 5= (A)	(B)
2. Hypochaeris radicata	30%	yes yes	FACU		e Index = B/A=	(D)
3. Leucanthemum vulgare	25%	ves	FACU	Hydrophytic Vegetati		
4. Plantago major	20%	no	FAC		or Hydrophytic Vegetation	
5.	%			2 – Dominance 1		
6.	%			3 - Prevalence Ir	ndex is ≤3.0¹	
7.	%				al Adaptations ¹ (Provide	
8					in Remarks or on a separa	te
9				sheet)		
10				5 - Wetland Non	-Vascular Plants	
11. <u>50% = 63 20% = 25</u>	<u>%</u> 125%	=Total Cover		 Broblematic Hyd	Irophytic Vegetation ¹ (Expla	ain)
$\frac{30\% = \underline{03}}{\underline{000}} 20\% = \underline{23}$ <u>Woody Vine Stratum</u> (Plot size: <u>15</u> ft radius)	125%					, iii)
1	%			¹ Indicators of hydric so	oil and wetland hydrology	
2.	%				ss disturbed or problematic	
50% = 20% =	%	=Total Cover			I	
<u> </u>				Hydrophytic		
				Vegetation	_	_
% Bare Ground in Herb Stratum 0%				Present?	Yes 🗌 No	
Remarks:						
Remarks.						

SOIL						Sampling Point: <u>TP15</u>
Profile Description:	(Describe to the dep	oth needed to docu	ment the indicator or	confirm	the absence of indicators.)	
Depth	Matrix		Redox Features			
(inches) Color (m		Color (moist)	% Type ¹	Loc	² Texture	Remarks
0-12 10YR		· · · ·	%		Silty Loam	
12-16 10YR	5/6 100%		%		Silty Loam	
	%		%			
	%		%			
			<u>%</u>			
·			<u> </u>			·
¹ Type: C-Concent		M-Reduced Matrix	CS=Covered or Coated	Sand G	rains. ² Location: PL=Pore	Lining M-Matrix
	ors: (Applicable to all				Indicators for Problemat	
Histosal (A1)		Sandy Red			2 cm Muck (A10)	
Histic Epipedon (42)	Stripped Ma			Red Parent Material (TF	2)
Black Histic (A3)		Loamy Muc	ky Mineral (F1) (except	MLRA 1) 🗌 Very Shallow Dark Surfa	ace (TF12)
Hydrogen Sulfide	(A4)	Loamy Gley	ed Matrix (F2)		Other (Explain in Remar	ks)
Depleted Below	Dark Surface (A11)	Depleted M	atrix (F3)			
Thick Dark Surfac	e (A12)	Redox Dark	Surface (F6)		³ Indicators of hydrophytic ve	egetation and
Sandy Mucky Mir	erals (S1)	Depleted D	ark Surface (F7)		Wetland hydrology must	be present,
Sandy Gleyed Ma		Redox Dep			unless disturbed or prob	lematic
Restrictive Layer (if		_ ·	()			
Restrictive Edyci (ii	presentj.					
Туре:						
Depth (inches):	_				Hydric Soil Present?	Yes⊡ No⊠
Remarks:						
1						
HYDROLOGY						
Wetland Hydrology		a al all that apply)				(2)
Primary Indicators (n	nin. of one required; ch	ieck all that apply)			Secondary Indicat	ors (2 or more required)
Surface Water (A	1)	Water-Stair	ed Leaves (B9) (except	MLRA 1	, 2, 4A, 🗌 Water-Stained	Leaves (B9) (MLRA 1, 2,
High Water Table	(A2)	and 4B)		4A, and 4B)
Saturation (A3)		Salt Crust (311)		Drainage Patte	rns (B10)
Water Marks (B1)		Aquatic Inve	ertebrates (B13)		🗌 Dry-Season W	ater Table (C2)
Sediment Deposi	s (B2)	🗌 Hydrogen S	ulfide Odor (C1)		Saturation Visil	ble on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized R	izospheres along Living	Roots (C	C3) 🗌 Geomorphic Po	osition (D2)
Algal Mat or crust			Reduced Iron (C4)	, , ,	∫ Shallow Aquita	
Iron Deposits (B5			Reduction in Tilled Soils	s (C6)	FAC Neutral Te	
Surface Soil Crac			Stressed Plants (D1) (LF	. ,		unds (D6) (LRR A)
	on Aerial Imagery (B			,	Frost-Heave H	
	ed Concave Surface (I	, , ,				
Field Observations	```		· · · · · · · · · · · · · · · · · · ·			· · · · ·
Surface Water Prese		No 🖂 🛛 De	pth (Inches):			
Water Table Present		No 🛛 De	pth (Inches):	· · · · ·	Netland Hydrology Present?	
Saturation Present?	Yes		oth (Inches):	i '		Yes 🗌 No 🖂
(Includes Capillary fr				İ		
		nonitoring well, aeria	al photos, previous inspe	ections), i	f available:	
		- ·		,.		
Remarks:						

Project/Site: Kingfisher Applicant/Owner: Dudek		City/Cou	unty: <u>King</u> State:V		Date: <u>3/9/22</u> Point: TP16
Investigator(s): McGraw, Michele; Allison, Andrew		Sectio		p, Range: S24 T22 R05	
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Concave	Slope (%):8-15 %
Subregion (LRR): A2	Lat: 47.379		Long: -12		. NAD83
Soil Map Unit Name: Alderwood gravelly sandy loam				NWI classification: None	10,000
Are climatic / hydrologic conditions on the site typical					
Are Vegetation, Soil, or Hydrology significant				Circumstances" present? Yes⊠ N	
Are Vegetation, Soil, or Hydrology naturally				any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	-				aturas atc
		samping po		ons, transects, important re	
Hydrophytic Vegetation Present? Yes 🛛 No		Is the Sar	npled Area	a	
Hydric Soils Present? Yes ⊠ No		within a V		Yes⊠ No⊡	
Wetland Hydrology Present? Yes 🛛 No		itte in Matternal C	The		i vet her de e e e e ve
Remarks: This test plot was located within Parcel #2					just nerbaceous
species. This test plot met all three indicators, therefo	ore it meets the	e chiena or bein	g wettand.		
VEGETATION – Use scientific names of pl	ants.				
	Absolute	Dominant	Indicator	Dominance Test Worksheet	
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status		
1.	%		0.0100	Number of Dominant Species	1 (A)
	<u> </u>	·		That Are OBL, FACW, or FAC:	(/)
3.				-	
4.	%	·		Total Number of Dominant	1 (B)
50% = 20% =	%	=Total Cover		Species Across All Strata:	(2)
	///				
				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW, or FAC	<u>100</u> (A/B)
1.	<u>%</u>	·		Prevalence Index worksheet	
2	%	·		Total % Cover of:	Multiply by:
3	<u>%</u>			OBL species	x 1=
4	%	·		FACW species	x 2=
5.	%	Tatal Osuan		FAC species	x 3=
50% = 20% = Herb Stratum (Plot size: 5 ft radius)	%	=Total Cover		FACU species	x 4=
	70%	VOC	FAC	UPL species Column Totals:	x 5= (A) (B)
1. <u>Poa annua</u> 2. Juncus effusus	20%	yes no	FAC		
	20%		FAC	Prevalence Index = Hydrophytic Vegetation Indica	
	20%	<u>no</u>	FAC FAC		
4. <u>Plantago major</u> 5.	<u> </u>	no	FAC	1 – Rapid Test for Hydroph 2 – Dominance Test is >50	
6.	<u>~</u> %			\square 3 - Prevalence Index is \leq 3.	
7	<u>%</u>			4 - Morphological Adaptati	
8.	<u> </u>	·		supporting data in Remark	
9.	<u> </u>	·		sheet)	
10.	%			5 - Wetland Non-Vascular	Plants ¹
11.	<u> </u>	·			i idiito
50% = 65 20% = 26	130%	=Total Cover		Problematic Hydrophytic V	egetation ¹ (Explain)
<u>Woody Vine Stratum</u> (Plot size: <u>15</u> ft radius)	10070				
	%			¹ Indicators of hydric soil and wet	land hydrology
2.	%	·		must be present, unless disturbe	
	%	=Total Cover			
50% = 20% =		-		Hydrophytic	
				Vegetation	
				Present?	Yes 🛛 No 🗌
% Bare Ground in Herb Stratum 0%					
Remarks:					

Profile Description: (Describe to the depth	needed to docu	ment the ind	icator or confi	rm the	absence of indicators.)	
Depth Matrix		Redox Featu	ires			
	Color (moist)	%		Loc ²	Texture	Remarks
0-10 10YR 3/2 100%		%			Silty Loam	
10-16 10YR 4/1 90%	10YR 5/8	10%	С	М	Silty Loam	
<u> </u>		%				
<u>%</u>		<u>%</u>				
<u>%</u>		<u>%</u> %				
<u> </u>		%				
<u> </u>		<u> </u>				
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix,		or Coated San	d Grain	s. ² Location: PL=Pore	Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all LF					Indicators for Problemati	
Histosal (A1)	Sandy Redo				2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped Ma				Red Parent Material (TF2	
Black Histic (A3)	Loamy Muck			A 1)	Very Shallow Dark Surface	
Hydrogen Sulfide (A4)	Loamy Gley				Other (Explain in Remark	(S)
Depleted Below Dark Surface (A11)	Depleted Ma	atrix (F3)				
Thick Dark Surface (A12)	Redox Dark	. ,			³ Indicators of hydrophytic ve	
Sandy Mucky Minerals (S1)	Depleted Da	rk Surface (F	7)		Wetland hydrology must	
Sandy Gleyed Matrix (S4)	Redox Depr	essions (F8)			unless disturbed or probl	ematic
Restrictive Layer (if present):						
Type:						
Depth (inches): Remarks:				Ну	dric Soil Present?	Yes⊠ No⊡
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (min. of one required; chec	k all that apply)				Secondary Indicato	ors (2 or more required)
Surface Water (A1)	U Water-Staine	ed Leaves (B9) (except MLR	A 1. 2.	4A.	_eaves (B9) (MLRA 1, 2,
High Water Table (A2)	and 4B)		, (,	4A, and 4B)	
Saturation (A3)	Salt Crust (E	311)			Drainage Patter	
Water Marks (B1)	Aquatic Inve		3)		Dry-Season Wa	
Sediment Deposits (B2)	Hydrogen Su	ulfide Odor (C	1)		Saturation Visib	le on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rh			ts (C3)	Geomorphic Po	
Algal Mat or crust (B4)	Presence of	Reduced Iron	(C4)		Shallow Aquitar	d (D3)
Iron Deposits (B5)	Recent Iron	Reduction in -	Filled Soils (C6))	FAC Neutral Te	
Surface Soil Cracks (B6)	Stunted or S	tressed Plant	s (D1) (LRR A)		🗌 Raised Ant Mou	
☐ Inundation Visible on Aerial Imagery (B7)	Other (Expla	in in Remarks	5)		Frost-Heave Hu	immocks (D7)
Sparsely Vegetated Concave Surface (B8)	1		-			
Field Observations:						· ·
Surface Water Present? Yes		oth (Inches):				
Water Table Present? Yes		oth (Inches):		Wet	land Hydrology Present?	
Saturation Present? Yes 🛛	No 🗌 🛛 Dep	oth (Inches):	<u>7</u>			Yes 🛛 No 🗌
(Includes Capillary fringe) Describe Recorded Data (Stream gauge, mor	vitoring well aeria	l photos prev	ious inspection	s) if av	vailable:	
Describe Recorded Data (Stream gauge, mor	intoring well, aeria	ii priotos, prev	ious inspection	5), 11 av		
Remarks:						

Project/Site: Kingfisher		City/Cou	unty: King		Sampling Date: 3/9/22	
Applicant/Owner: Dudek			State: V	VA	Sampling Point: TP17	
Investigator(s): McGraw, Michele				p, Range: S24 T22 R05		
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Convex	Slope (%): <u>8-1</u>	5 %
Subregion (LRR): A2	Lat: 47.379			2.1224231	Datum: NAD83	
Soil Map Unit Name: Alderwood gravelly sandy loam,				NWI classification: None		
Are climatic / hydrologic conditions on the site typical f						
Are Vegetation, Soil, or Hydrology significant				Circumstances" present? any answers in Remarks		
Are Vegetation, Soil, or Hydrology naturally p		•		•	,	
SUMMARY OF FINDINGS – Attach site map		sampling po	int locati	ons, transects, imp	ortant leatures, etc.	
Hydrophytic Vegetation Present? Yes ⊠ No Hydric Soils Present? Yes □ No		Is the Sar	npled Area	a		
Hydric Soils Present? Yes □ No □ Wetland Hydrology Present? Yes □ No □		within a V	Vetland?	Yes N	o⊠	
Remarks: This test plot was located within Parcel #24		st east of Wetl	and G. The	e vegetation in this test pl	ot consisted of just herbaceou	JS
species. This test plot did not meet all wetland indicate						
				-		
VEGETATION – Use scientific names of pla	ants.					
	Absolute	Dominant	Indicator	Dominance Test Wor	ksheet	
Tree Stratum (Plot size: 30 ft radius)	% Cover	Species?	Status			
1	%			Number of Dominant S		(A)
2	%			That Are OBL, FACW,	or FAC:	
3	%			Total Number of Domi	nant	(D)
4 50% = 20% =	<u>%</u> %	=Total Cover		Species Across All Str		(B)
50% = <u>20%</u> = <u></u>	70	= Total Cover				
				Percent of Dominant S		
Sapling/Shrub Stratum (Plot size: 15 ft. radius)	0/			That Are OBL, FACW,		(A/B)
1	<u> % </u>			Prevalence Index wo		
2	<u> % </u> %			Total % Cover o OBL species	f: Multiply by: x 1=	_
	%			FACW species	x 2=	
4 5	<u> </u>			FAC species	x 3=	
50% = 20% =	%	=Total Cover		FACU species	x 4=	
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5=	
1. <u>Poa annua</u>	70%	yes	FAC	Column Totals:	(A)	(B)
2. Leucanthemum vulgare	20%	no	FACU		e Index = B/A=	
3. <u>Hypochaeris radicata</u>	20%	no	FACU	Hydrophytic Vegetat		
4. Trifolium repens	10%	no	FAC		or Hydrophytic Vegetation	
5	<u> % </u> %			2 – Dominance □ 3 - Prevalence Ir		
7	0/				al Adaptations ¹ (Provide	
8.					in Remarks or on a separate	
9.	0/			sheet)		
10.	%			5 - Wetland Non	-Vascular Plants ¹	
11.	%					
$50\% = \underline{60}$ 20% = <u>24</u>	120%	=Total Cover		Problematic Hyd	Irophytic Vegetation ¹ (Explain)	I.
Woody Vine Stratum (Plot size: <u>15</u> ft radius)						
1	<u>%</u>				bil and wetland hydrology	
2	<u>%</u> %	=Total Cover		must be present, unles	ss disturbed or problematic.	
50% = 20% =	70	= Total Cover		Hydrophytic		
				Vegetation		
				Present?	Yes⊠ No⊡	
% Bare Ground in Herb Stratum <u>0%</u>						
Remarks:						

SOIL								Sampling Point: TP17
Profile D	escription: (Desc	ribe to the dept	h needed to doc	ument the ind	licator or confi	irm the	absence of indicators.)	
Depth	Matrix	ĸ		Redox Feat	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-9	10YR 3/2	100%		%			Silty Loam	
9-16	10YR 5/6	100%		%			Silty Loam	
		<u>%</u>		%			·	
				%				
		<u>%</u> %		%				
		<u> </u>		<u>%</u>				
		<u>%</u>		%	· ·			
¹ Type:	C=Concentration,		I=Reduced Matrix		or Coated San	d Grain	s. ² Location: PL=Pore	Lining, M=Matrix
	oil Indicators: (A						Indicators for Problemation	
Histos			Sandy Rec		-		2 cm Muck (A10)	-
Histic	Epipedon (A2)		Stripped M	atrix (S6)			Red Parent Material (TF2	2)
Black	Histic (A3)				I) (except MLR	A 1)	Very Shallow Dark Surface	ce (TF12)
🗌 Hydro	gen Sulfide (A4)		🗌 Loamy Gle	yed Matrix (F2)		Other (Explain in Remark	s)
Deple	ted Below Dark Su	urface (A11)	Depleted N	latrix (F3)				
Thick	Dark Surface (A12	2)	🗌 Redox Dar	k Surface (F6)			³ Indicators of hydrophytic ve	
Sandy	/ Mucky Minerals (S1)	Depleted D	ark Surface (F	7)		Wetland hydrology must	
Sandy	/ Gleyed Matrix (S	4)	🗌 Redox Dep	pressions (F8)			unless disturbed or proble	ematic
Restricti	ve Layer (if prese	ent):						
Type:	<u> </u>							
Depth (in						Нус	dric Soil Present?	Yes∏ No⊠
Remarks	:							
HYDROI								
	Hydrology Indica							
Primary I	ndicators (min. of	one required; che	eck all that apply)				Secondary Indicato	ors (2 or more required)
□ Surfac	ce Water (A1)		Water-Stai	ned Leaves (B	9) (except MLF	RA 1. 2.	4A.	_eaves (B9) (MLRA 1, 2,
	Water Table (A2)		and 4E		-, (, ,	4A, and 4B)	
Satura	ation (A3)		Salt Crust	(B11)			Drainage Patter	
U Water	Marks (B1)		Aquatic Inv	ertebrates (B1	3)		Dry-Season Wa	
	ent Deposits (B2)		Hydrogen S	Sulfide Odor (C	21)		-	le on Aerial Imagery (C9)
	eposits (B3)				ong Living Roo	ts (C3)	Geomorphic Po	
	Mat or crust (B4)		Presence of	of Reduced Iron	n (C4)	. ,	Shallow Aquitar	d (D3)
-	eposits (B5)				Tilled Soils (C6)	FAC Neutral Te	
	ce Soil Cracks (B6)			ts (D1) (LRR A)	,	Raised Ant Mou	()
	ation Visible on Ae				,	,	Frost-Heave Hu	
	ely Vegetated Cor				- /			
	servations:		- /					
Surface V	Water Present?	Yes 🗌	No 🖂 🛛 De	epth (Inches):				
Water Ta	ble Present?	Yes 🗌		epth (Inches):		Wet	and Hydrology Present?	
Saturatio	n Present?	Yes 🖂	No 🗌 🛛 De	epth (Inches):	<u>19</u>			Yes 🗌 No 🖂
	Capillary fringe)							
Describe	Recorded Data (S	stream gauge, mo	onitoring well, aer	ial photos, prev	vious inspectior	ns), if av	ailable:	
Remarks								
Remarks								

Project/Site: Kingfisher		City/Co	unty: King		Sampling Date		
Applicant/Owner: Dudek			State: V		Sampling Point	: TP18	
Investigator(s): McGraw, Michele; Allison, Andrew				p, Range: S24 T22 R05			
Landform (hillslope, terrace, etc.): Terrace	1 1 17 070			onvex, none): <u>Convex</u>		Slope (%): <u>8</u>	-15 %
Subregion (LRR): <u>A2</u>	Lat: 47.379			2.1212145	Datum: NA	D83	
Soil Map Unit Name: <u>Alderwood gravelly sandy loam</u> Are climatic / hydrologic conditions on the site typical	1, 8-15 percent	siopes		NWI classification: None			
Are Vegetation, Soil, or Hydrology significant				Circumstances" present?			
Are Vegetation, Soil, or Hydrology asymical Are Vegetation, Soil, or Hydrology naturally				any answers in Remarks			
SUMMARY OF FINDINGS – Attach site ma	-			-		as ata	
	· · ·	sampling po		ons, transects, impo		es, elc.	
Hydrophytic Vegetation Present? Yes No		Is the Sar	npled Area	a			
Hydric Soils Present? Yes □ No Wetland Hydrology Present? Yes □ No		within a V	Vetland?	Yes No			
Remarks: This test plot was located within Parcel #2		outh of Wotland	IE Tho vo	actation in this tast plat a	onsisted of just	horbacoous	
species. This test plot did not meet all wetland indica						neibaceous	•
				a of being wettand.			
VEGETATION – Use scientific names of pl	ants.						
	Absolute	Dominant	Indicator	Dominance Test Worl	rchoot		
Tree Stratum (Plot size: <u>30</u> ft radius)	% Cover	Species?	Status	Dominance rest won	KSheet		
1.	<u>% Cover</u> %	Species	Status	Number of Dominant S	necies	1	(4)
	%			That Are OBL, FACW,		1	(A)
	%						
3. 4.	<u> </u>			Total Number of Domin	ant	1	(B)
50% = 20% =	<u> </u>	=Total Cover		Species Across All Stra	ata:	I	(0)
30% = <u> </u>	/0						
				Percent of Dominant S			
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW,		<u>100</u>	(A/B)
1	<u>%</u>			Prevalence Index wor			
2	%			Total % Cover of		Multiply by:	
3	%			OBL species	x 1=		_
4	%			FACW species	x 2=		_
5	%%	Total Cavar		FAC species	x 3=		-
50% = 20% = <u>Herb Stratum</u> (Plot size: <u>5</u> ft radius)	/0	=Total Cover		FACU species UPL species	x 4= x 5=		_
1. Poa annua	60%	yes	FAC	Column Totals:	(A)	·	(B)
2. Leucanthemum vulgare	15%	no	FACU		= Index = B/A=		_ (0)
3. Plantago major	15%	no	FAC	Hydrophytic Vegetatio			
4. Hypochaeris radicata	10%	no	FACU	1 – Rapid Test fo	r Hydrophytic V	egetation	
5.	%		17,00	2 – Dominance T	est is >50%	ogetation	
6.	0/			3 - Prevalence In			
7.	%		-	4 - Morphological		Provide	
8.	%			supporting data in			e
9.	%			sheet)		-	
10.	%			5 - Wetland Non-	Vascular Plants	s ¹	
11.	%						
50% = 50 $20% = 20$	100%	=Total Cover		Problematic Hydr	ophytic Vegeta	tion ¹ (Explai	n)
Woody Vine Stratum (Plot size: <u>15</u> ft radius)							
1	%			¹ Indicators of hydric so			
2	%			must be present, unles	s disturbed or p	oroblematic.	
50% = 20% =	%	=Total Cover					
				Hydrophytic			
				Vegetation			_
% Bare Ground in Herb Stratum 0%				Present?		Yes⊠ No[
Remarks:							

SOIL								Sampling Point: <u>TP18</u>
Profile D	escription: (Desc	ribe to the dept	h needed to doo	ument the inc	licator or confi	irm the a	absence of indicators.)	
Depth	Matrix	<i>x</i>		Redox Feat	uroe			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-9	10YR 3/2	100%		%		200	Silty Loam	
9-16	10YR 5/8	100%		%			Silty Loam	
		%		%			·	
		%		%				
		%		%				
		%		%				
		%		%				
		<u>%</u>		%				<u> </u>
	C=Concentration,					id Grains		
Histos	oil Indicators: (A	pplicable to all L	Sandy Re		.)		Indicators for Problemati 2 cm Muck (A10)	c Hydric Solis
	Epipedon (A2)		Stripped N				Red Parent Material (TF2	2)
	Histic (A3)				1) (except MLR		Very Shallow Dark Surfa	
	gen Sulfide (A4)			eyed Matrix (F2		-	Other (Explain in Remark	. ,
-		$rfood (\Lambda 11)$)			(5)
	ted Below Dark Su	. ,		. ,			31	and at land and
	Dark Surface (A12	,		rk Surface (F6)			³ Indicators of hydrophytic ve Wetland hydrology must	
-	/ Mucky Minerals (Dark Surface (F	.7)		unless disturbed or probl	
☐ Sandy	/ Gleyed Matrix (Se	4)	Redox De	pressions (F8)				
Restricti	ve Layer (if prese	ent):						
Tunoi								
Type: Depth (in	ches).					Hvc	Iric Soil Present?	Yes⊡ No⊠
Remarks:						Tiye		
INCITIAL NO.	•							
HYDROL	LOGY							
Wetland	Hydrology Indica	tors:						
Primary I	ndicators (min. of o	one required; che	ck all that apply)				Secondary Indicate	ors (2 or more required)
	$\sim M_{\rm otor}$ (A1)		U Water Sta	inad Lagyas (P		2 4 1 2		
	ce Water (A1) Nater Table (A2)				9) (except MLF	ΚΑΊ, Ζ ,		Leaves (B9) (MLRA 1, 2,
	· · ·		and 4	,			4A, and 4B)	
Satura	. ,		Salt Crust	. ,	0)		Drainage Patter	
	Marks (B1)			vertebrates (B1	,		Dry-Season Wa	
	ent Deposits (B2)			Sulfide Odor (C				ble on Aerial Imagery (C9)
	eposits (B3)			-	long Living Roo	ots (C3)	Geomorphic Po	· ,
-	Mat or crust (B4)			of Reduced Iron	. ,		Shallow Aquitar	
	eposits (B5)				Tilled Soils (C6	,	FAC Neutral Te	
	ce Soil Cracks (B6)				ts (D1) (LRR A))	Raised Ant Mou	
🗌 Inunda	ation Visible on Ae	rial Imagery (B7)	🗌 Other (Exp	lain in Remark	s)		Frost-Heave Hu	ımmocks (D7)
Sparse	ely Vegetated Con	cave Surface (B8	3)					
	servations:							
Surface V	Water Present?	Yes 🗌	No 🛛 🛛 D	epth (Inches):				
	ble Present?	Yes 🗌		epth (Inches):		Wetl	and Hydrology Present?	
	n Present?	Yes 🗌	No 🖂 🛛 D	epth (Inches):				Yes 🗌 No 🖂
	Capillary fringe)						- 1	
Describe	Recorded Data (S	stream gauge, mo	onitoring well, ae	rial photos, prev	vious inspectior	ns), if ava	allable:	
Remarks								
iteniaiKS.	•							
ł								

Project/Site: Kingfisher		City/Cou	unty: King		Date: 3/9/22
Applicant/Owner: Dudek			State: V	VA Sampling	Point: TP19
Investigator(s): McGraw, Michele; Allison, Andrew		Section	n, Townshi	p, Range: S24 T22 R05	
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Concave	Slope (%): <u>8-15 %</u>
Subregion (LRR): A2 Soil Map Unit Name: Alderwood gravelly sandy loam	Lat: 47.380			2.1187296 Datum NWI classification: PEM1F	NAD83
Are climatic / hydrologic conditions on the site typical					
Are Vegetation, Soil, or Hydrology significan				Circumstances" present? Yes⊠ N	
Are Vegetation, Soil, or Hydrology a significant Are Vegetation, Soil, or Hydrology naturally				any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	-		-		aturas atc
			Int loou		
Hydrophytic Vegetation Present?Yes ⊠NoHydric Soils Present?Yes ⊠No		Is the Sar	npled Area		
Wetland Hydrology Present? Yes 🖂 No		within a V	Vetland?	Yes⊠ No⊡	
Remarks: This test plot was located within Parcel #2		Lithin Wetland F	The year	tation in this test plot consisted of	iust herbaceous
species. This test plot met all three indicators, therefo					Juor nonoccocc
			9		
I					
VECETATION Lies estertific names of n					
VEGETATION – Use scientific names of pl	Absolute	Dominant	Indicator	Dominance Test Worksheet	
Tree Stratum (Plot size:30 ft radius)	% Cover	Species?	Status		
1.	<u>% Cover</u> %	000000	Olalao	Number of Dominant Species	1 (A)
2	<u> </u>			That Are OBL, FACW, or FAC:	
0	%			1	
3 4.	<u> </u>			Total Number of Dominant	1 (B)
50% = 20% =		=Total Cover		Species Across All Strata:	
On the store of the start of th				Percent of Dominant Species	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft</u> . radius)	0/			That Are OBL, FACW, or FAC Prevalence Index worksheet	<u>100</u> (A/B)
1	%			=	Multiply by:
23.	%			Total % Cover of: OBL species	Multiply by: x 1=
3 4.	%			FACW species	x 2=
5.	%			FAC species	
50% = 20% =		=Total Cover		FACU species	x 3= x 4= x 5= (A)(B)
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5=
1. Poa annua	70%	yes	FAC	Column Totals:	(A) (B)
2. Ranunculus repens	20%	no	FAC	Prevalence Index = I	
3. Phalaris arundinacea	20%	no	FACW	Hydrophytic Vegetation Indica	
4.	%			□ 1 – Rapid Test for Hydroph	
5.	%			2 – Dominance Test is >50)%
6.	%			☐ 3 - Prevalence Index is ≤3.	
7	%			4 - Morphological Adaptation	ons ¹ (Provide
8	%			supporting data in Remark	s or on a separate
9	%			sheet)	
10	%			5 - Wetland Non-Vascular	Plants ¹
11.	<u>%</u>			- <u> </u>	· · · · · · · · · · · · · · · · · · ·
$50\% = \frac{55}{20\%} = \frac{22}{20\%}$	110%	=Total Cover		Problematic Hydrophytic V	egetation ¹ (Explain)
<u>Woody Vine Stratum</u> (Plot size: <u>15</u> ft radius)	0/				
1	%			¹ Indicators of hydric soil and wet	
2		=Total Cover		must be present, unless disturbe	ed or problematic.
50% = 20% =	/0			Hydrophytic	
				Vegetation	
				Present?	Yes⊠ No⊡
% Bare Ground in Herb Stratum 0%					
Remarks:					

Profile Description: (Describe to the depth	needed to docu	ment the ind	cator or confirm	m the ab	sence of indicators.)	
Depth Matrix		Redox Featu	Ires			
(inches) Color (moist) %	Color (moist)	%		-0C ²	Texture	Remarks
0-7 10YR 3/2 95%	10YR 4/6	5%		М	Silty Loam	
7-16 10YR 5/8 100%		%			Silty Loam	
<u> </u>		%				
<u>%</u>		%				
<u>%</u>		%				
<u> </u>		%				
<u>%</u>		<u>%</u>				
1. Turney C. Concentration D. Depletion DM	Deduced Metrix	<u>%</u>	ar Cootod Cood	Craina	21 agentions DL Darg	Lining M. Matrix
¹ Type: C=Concentration, D=Depletion, RM= Hydric Soil Indicators: (Applicable to all Lf					² Location: PL=Pore ndicators for Problemat	
Histosal (A1)	Sandy Redo)		2 cm Muck (A10)	
Histosal (A1)	Stripped Mat				Red Parent Material (TF	.2)
Black Histic (A3)) (except MLRA		Very Shallow Dark Surfa	
Hydrogen Sulfide (A4)	Loamy Gleye			-	Other (Explain in Remar	
						K5)
Depleted Below Dark Surface (A11)	Depleted Ma	. ,		31	Production (1) the standard	and the floor of the
Thick Dark Surface (A12)	Redox Dark	()	_`	٩lr	dicators of hydrophytic v	
Sandy Mucky Minerals (S1)	Depleted Da	•	7)		Wetland hydrology must unless disturbed or prob	
Sandy Gleyed Matrix (S4)	Redox Depre	essions (F8)			unless disturbed of prob	nemalic
Restrictive Layer (if present):						
Type:					0 " D (0	
Depth (inches): Remarks:				Hydri	c Soil Present?	Yes⊠ No⊡
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (min. of one required; check	k all that apply)				Secondary Indicat	ors (2 or more required)
Surface Water (A1)		ed Leaves (B9) (except MLRA	A 1, 2, 4A		Leaves (B9) (MLRA 1, 2,
High Water Table (A2)	and 4B)				4A, and 4B	
Saturation (A3)	Salt Crust (B	,			Drainage Patte	
Water Marks (B1)	Aquatic Inve		,		Dry-Season W	
Sediment Deposits (B2)	🗌 Hydrogen Su				Saturation Visit	ble on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhi	•		s (C3)	Geomorphic Po	
Algal Mat or crust (B4)	Presence of	Reduced Iron	(C4)		Shallow Aquita	rd (D3)
Iron Deposits (B5)	Recent Iron	Reduction in ⁻	Filled Soils (C6)		FAC Neutral Te	est (D5)
Surface Soil Cracks (B6)	Stunted or S	tressed Plants	s (D1) (LRR A)		Raised Ant Mo	unds (D6) (LRR A)
Inundation Visible on Aerial Imagery (B7)	Other (Explain Other)	in in Remarks	5)		Frost-Heave H	ummocks (D7)
Sparsely Vegetated Concave Surface (B8)						
Field Observations:						
Surface Water Present? Yes		oth (Inches):				
Water Table Present? Yes 🖂	No 🗌 🛛 Dep	oth (Inches): <u>'</u>	12	Wetlan	nd Hydrology Present?	
Saturation Present? Yes 🖂	No 🗌 🛛 Dep	oth (Inches): (<u>)</u>			Yes 🖂 No 🗌
(Includes Capillary fringe)						
		Inhotoe prov	ious increations) if avail:	ahle.	
Describe Recorded Data (Stream gauge, mor	itoring well, aeria	r photos, prev), ii avaik	abie.	
Remarks:	itoring well, aeria					
	itoring well, aeria					
	itoring well, aeria					
	itoring well, aeria					

Project/Site: Kingfisher		City/Co	unty: King		Date: 3/9/22
Applicant/Owner: Dudek		0	State: V		Point: TP20
Investigator(s): McGraw, Michele; Allison, Andrew				ip, Range: S24 T22 R05	
Landform (hillslope, terrace, etc.): Terrace	1 at 17 200			onvex, none): Convex	Slope (%): <u>8-15 %</u>
Subregion (LRR): A2 Soil Map Unit Name: Alderwood gravelly sandy loam	Lat: 47.380			2.1187077 Datum NWI classification: None	: NAD83
Are climatic / hydrologic conditions on the site typical	for this time of	$\frac{\text{slopes}}{\text{voar}^2}$ $\sqrt{\text{os}}$			
Are Vegetation, Soil, or Hydrology significan				Circumstances" present? Yes⊠ N	
Are Vegetation, Soil, or Hydrology asjmitted				any answers in Remarks.)	
				-	
SUMMARY OF FINDINGS – Attach site ma		sampling po	int locati	ions, transects, important le	atures, etc.
Hydrophytic Vegetation Present? Yes No		Is the Sar	npled Area	а	
Hydric Soils Present? Yes No		within a W		Yes⊡ No⊠	
Wetland Hydrology Present? Yes No					
Remarks: This test plot was located within Parcel #2 species. This test plot did not meet all wetland indicated and the species.					a of just herbaceous
	ors, mereiore	it does not mee		la of being wettand.	
VEGETATION – Use scientific names of pl	ante				
	Absolute	Dominant	Indicator	Dominance Test Worksheet	
Tree Stratum (Plot size: <u>30</u> ft radius)	% Cover	Species?	Status		
1	%			Number of Dominant Species	<u> </u>
2	%			That Are OBL, FACW, or FAC:	
3	%			Total Number of Dominant	
4.	%			Species Across All Strata:	<u> </u>
50% = 20% =	%	=Total Cover			
				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW, or FAC	50 (A/B)
	%			Prevalence Index worksheet	
2.	%			Total % Cover of:	Multiply by:
3.	%			OBL species	x 1=
4.	%			FACW species	x 2=
5	%			FAC species	x 3=
50% = 20% =	%	=Total Cover		FACU species	x 4=
Herb Stratum (Plot size: <u>5</u> ft radius)				UPL species	x 5=
1. <u>Hypochaeris radicata</u>	40%	yes	FACU	Column Totals:	(A) (B)
2. <u>Poa annua</u>	30%	yes	FAC	Prevalence Index =	
3. Leucanthemum vulgare	20%	no	FACU	Hydrophytic Vegetation Indica	
4. Plantago major	20%	no	FAC	1 – Rapid Test for Hydroph	
5	%			2 – Dominance Test is >50	
6	<u>%</u>			3 - Prevalence Index is ≤ 3 .	
7	<u>%</u>	·		4 - Morphological Adaptatio	
8				supporting data in Remark sheet)	s or on a separate
9	%			,	Dianta ¹
10.				5 - Wetland Non-Vascular	Plants
11. <u>50% = 55 20% = 22</u>	<u>%</u> 110%	=Total Cover		Problematic Hydrophytic V	agetation ¹ (Evaluin)
$30\% = \frac{55}{20\%} = \frac{22}{20\%}$ Woody Vine Stratum (Plot size: <u>15</u> ft radius)	110%	= Total Cover			egetation (Explain)
1	%			¹ Indicators of hydric soil and wet	land hydrology
2.	%			must be present, unless disturbe	
	%	=Total Cover			
50% = 20% =	/0			Hydrophytic	
				Vegetation	
				Present?	Yes⊡ No⊠
% Bare Ground in Herb Stratum 0%					
Remarks:				1	

SOIL								Sampling Point: TP20
Profile D	escription: (Desc	ribe to the dept	h needed to doo	ument the ind	licator or confi	irm the a	absence of indicators.)	
Depth	Matrix	ĸ		Redox Feat	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 2/2	100%	, <i>, , , , , , , , , , , , , , , , , , </i>	%			Silty Loam	
7-16	10YR 5/8	100%		%			Silty Loam	
		<u>%</u>		%				
		<u>%</u>		%			·	
		<u>%</u> %		<u>%</u> %				
<u> </u>		<u> </u>		%				
		<u> </u>		<u> </u>	<u> </u>			
¹ Type:	C=Concentration,		-Reduced Matri		or Coated San	d Grains	² Location: PL=Pore	Lining M-Matrix
	oil Indicators: (A						Indicators for Problemati	
Histos			Sandy Red		/		2 cm Muck (A10)	· · · · · · ·
Histic	Epipedon (A2)		Stripped M	latrix (S6)			Red Parent Material (TF2	2)
Black	Histic (A3)		🗌 Loamy Mu	cky Mineral (F1	I) (except MLR	A 1)	Very Shallow Dark Surfa	ce (TF12)
🗌 Hydro	gen Sulfide (A4)		🗌 Loamy Gle	eyed Matrix (F2)		Other (Explain in Remark	(S)
Deple	ted Below Dark Su	Irface (A11)	Depleted I	Aatrix (F3)				
Thick	Dark Surface (A12	2)	Redox Da	k Surface (F6)		:	³ Indicators of hydrophytic ve	getation and
	/ Mucky Minerals (,		Dark Surface (F	7)		Wetland hydrology must	be present,
-	Gleved Matrix (S			pressions (F8)	,		unless disturbed or probl	ematic
	ve Layer (if prese	,						
Resultu	ve Layer (il prese	iii.						
Type:								
Depth (in	ches):					Hyd	ric Soil Present?	Yes⊡ No⊠
Remarks	:							
1								
HYDROI								
	Hydrology Indica							
Primary I	ndicators (min. of o	one required; che	ck all that apply)				Secondary Indicate	ors (2 or more required)
□ Surfac	ce Water (A1)		□ Water-Sta	ned Leaves (B	9) (except MLF	RA 1. 2. 4	4A. 🗆 Water-Stained I	Leaves (B9) (MLRA 1, 2,
	Nater Table (A2)		and 4		-, (,,	4A, and 4B)	
	ation (A3)		Salt Crust	,			Drainage Patter	
	Marks (B1)			vertebrates (B1	3)		Dry-Season Wa	
	nent Deposits (B2)		· ·	Sulfide Odor (C	,		-	ble on Aerial Imagery (C9)
	Deposits (B3)				ong Living Roo	ts (C3)	Geomorphic Po	
	Mat or crust (B4)			of Reduced Iron		(00)	Shallow Aquitar	
-	eposits (B5)				Tilled Soils (C6	•	FAC Neutral Te	. ,
	• • •	N N			•	,		()
	ce Soil Cracks (B6)				ts (D1) (LRR A))	Raised Ant Mou	
	ation Visible on Ae			lain in Remark	S)		Frost-Heave Hu	IMMOCKS (D7)
	ely Vegetated Con	cave Surface (B8	5)			1		
	servations:							
	Water Present?	Yes 🗌		epth (Inches):		14/	and Hudgels and Brissian (C	
	ble Present?	Yes 🗌		epth (Inches):		weti	and Hydrology Present?	
	n Present?	Yes 🗌	No 🛛 🛛 D	epth (Inches):				Yes 🗌 No 🛛
	Capillary fringe) Recorded Data (S	tream dauge mo	nitoring well ag	ial photos prev	vious inspection	l (a) if ave	ailable:	
Describe		a cam gauge, mo		iai priotos, prev		, ii ave		
Remarks	:							
. comuno								

Project/Site: Kingfisher		City/Cou	unty: King	Sampling Date: 3/9/22	
Applicant/Owner: Dudek			State: V		
Investigator(s): McGraw, Michele; Allison, Andrew				p, Range: S24 T22 R05	
Landform (hillslope, terrace, etc.): <u>Terrace</u>	L at: 47.00			onvex, none): Convex Slope (%):8-1	5 %
Subregion (LRR): A2 Soil Map Unit Name: Alderwood gravelly sandy loam	Lat: 47.38			2.1183932 Datum: NAD83 NWI classification: None	
Are climatic / hydrologic conditions on the site typical	for this time of	tvear? Yes⊠			
Are Vegetation, Soil, or Hydrology significant				Circumstances" present? Yes \square No \square	
Are Vegetation , Soil, or Hydrology naturally				any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site may		-	-	-	
Hydrophytic Vegetation Present? Yes 🛛 No				····; ······; ·····	
Hydric Soils Present? Yes ☐ No			npled Area		
Wetland Hydrology Present? Yes No	_	within a V	Vetland?	Yes□ No⊠	
Remarks: This test plot was located within Parcel #2		ast of Wetland	H. The veg	petation in this test plot consisted of just herbaceous	
species. This test plot did not meet all wetland indicat					
VEGETATION – Use scientific names of pla	ants.				
	Absolute	Dominant	Indicator	Dominance Test Worksheet	
Tree Stratum (Plot size: 30 ft radius)	% Cover	Species?	Status		
1	%			Number of Dominant Species 2 ((A)
2	%			That Are OBL, FACW, or FAC:	
3	%			Total Number of Dominant	
4	%			Species Across All Strata:	(B)
50% = 20% =	%	=Total Cover			
				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				· · · · · · · · · · · · · · · · · · ·	(A/B)
1	%	·		Prevalence Index worksheet	
2	%	·		Total % Cover of: Multiply by:	_
3	%			OBL species x 1=	
4	%	·		FACW species x 2=	
5	<u>%</u> %	=Total Cover		FAC species x 3= FACU species x 4=	
$\frac{50\%}{\text{Herb Stratum}} = \frac{20\%}{\text{(Plot size: 5)}} \text{ ft radius}$	/0			PACO species x 4= UPL species x 5=	
1. Poa annua	60%	yes	FAC	Column Totals: (A)	(B)
2. Phalaris arundinacea	40%	yes	FACW	Prevalence Index = B/A=	(0)
3. Vicia americana	20%	no	FAC	Hydrophytic Vegetation Indicators:	
4.	%			□ 1 – Rapid Test for Hydrophytic Vegetation	
5.	%			2 – Dominance Test is >50%	
6.	%			□ 3 - Prevalence Index is $\leq 3.0^{1}$	
7	%	·		4 - Morphological Adaptations ¹ (Provide)	
8	%			supporting data in Remarks or on a separate	
9	<u>%</u>	·		sheet)	
10	%	·		5 - Wetland Non-Vascular Plants ¹	
11. $50\% = \underline{60} \ 20\% = \underline{24}$	<u>%</u> 120%	=Total Cover		 Drablemetic Hydrophytic Vegetation ¹ (Evaluin)	
$30\% = \underline{50}\% = \underline{20}\% = \underline{24}$ <u>Woody Vine Stratum</u> (Plot size: <u>15</u> ft radius)	120%			Problematic Hydrophytic Vegetation ¹ (Explain)	
	%			¹ Indicators of hydric soil and wetland hydrology	
2.	<u> </u>	·		must be present, unless disturbed or problematic.	
50% = 20% =	%	=Total Cover			
50 % = 20 % =	. <u> </u>			Hydrophytic	
				Vegetation	
% Data Cround in Llark Stratum 00/				Present? Yes⊠ No⊡	
% Bare Ground in Herb Stratum <u>0%</u>					
Remarks:					

SOIL					Sampling Point: TP21
Profile Description: (Describe to	o the depth needed to doc	ument the indicator or co	onfirm the a	bsence of indicators.)	
Depth Matrix		Redox Features			
· · · · · · · · · · · · · · · · · · ·	% Color (moist)	% Type ¹	Loc ²	Texture	Remarks
	00%	<u> </u>		Silty Loam	Remains
	00%	%		Silty Loam	
	%	%		¥	
	%	%			
	%	%			
	%	%			
·	%	<u>%</u>			
	%	%			<u></u>
¹ Type: C=Concentration, D=De			Sand Grains		
Hydric Soil Indicators: (Applica	Sandy Red		ſ	Indicators for Problemation 2 cm Muck (A10)	c Hydric Solis
Histic Epipedon (A2)	Stripped Ma			Red Parent Material (TF2	2)
Black Histic (A3)		ky Mineral (F1) (except N		Very Shallow Dark Surfa	
Hydrogen Sulfide (A4)	-	yed Matrix (F2)	-	Other (Explain in Remark	. ,
			l		.5)
Depleted Below Dark Surface		. ,	3		e e de Cara e e e e e
Thick Dark Surface (A12)	Redox Darl	. ,		Indicators of hydrophytic ve Wetland hydrology must	
Sandy Mucky Minerals (S1)	-	ark Surface (F7)		unless disturbed or probl	
Sandy Gleyed Matrix (S4)	🗌 Redox Dep	ressions (F8)			emano
Restrictive Layer (if present):					
_					
Type:			اميرا	ria Sail Bracont?	
Depth (inches):			пуа	ric Soil Present?	Yes⊡ No⊠
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:					
Primary Indicators (min. of one re	quired: check all that apply)			Secondary Indicate	vrs (2 or more required)
				i	ors (2 or more required)
Surface Water (A1)		ned Leaves (B9) (except I	/ILRA 1, 2, 4		_eaves (B9) (MLRA 1, 2,
High Water Table (A2)	and 4B	,		4A, and 4B)	
Saturation (A3)	🗌 Salt Crust (Drainage Patter	
Water Marks (B1)	🗌 Aquatic Inv	ertebrates (B13)		🗌 Dry-Season Wa	ter Table (C2)
Sediment Deposits (B2)	🗌 Hydrogen S	Sulfide Odor (C1)		Saturation Visib	le on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized RI	hizospheres along Living I	Roots (C3)	🗌 Geomorphic Po	sition (D2)
Algal Mat or crust (B4)	Presence o	f Reduced Iron (C4)		🗌 Shallow Aquitar	d (D3)
Iron Deposits (B5)	Recent Iron	Reduction in Tilled Soils	(C6)	FAC Neutral Te	st (D5)
Surface Soil Cracks (B6)	Stunted or	Stressed Plants (D1) (LRF	R A)	🗌 Raised Ant Mou	inds (D6) (LRR A)
Inundation Visible on Aerial Im		ain in Remarks)		Frost-Heave Hu	
□ □ Sparsely Vegetated Concave				—	
Field Observations:		·			,
Surface Water Present? Yes	🗆 No 🖾 De	epth (Inches):			
Water Table Present? Yes		epth (Inches):	Wetla	and Hydrology Present?	
Saturation Present? Yes		pth (Inches):		, .,	Yes 🗌 No 🖂
(Includes Capillary fringe)			İ		
Describe Recorded Data (Stream	gauge, monitoring well, aeri	al photos, previous inspec	tions), if ava	ilable:	
Remarks:					

Project/Site: Kingfisher		City/Cou	unty: King		ampling Date: 3/9/22
Applicant/Owner: Dudek	State: WA			ampling Point: TP22	
Investigator(s): McGraw, Michele; Allison, Andrew				ip, Range: S24 T22 R05	01
Landform (hillslope, terrace, etc.): Terrace	L at: 17.00			onvex, none): Concave	Slope (%):8-15 %
Subregion (LRR): <u>A2</u> Soil Map Unit Name: <u>Alderwood gravelly sandy loam</u>	Lat: 47.38	078989		2.1176528 NWI classification: None	Datum: NAD83
Are climatic / hydrologic conditions on the site typical	for this time of	$\frac{1}{1}$			
Are Vegetation, Soil, or Hydrology significan				Circumstances" present? Ye	es⊠ No□
Are Vegetation , Soil , or Hydrology naturally				any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma			•		
Hydrophytic Vegetation Present? Yes 🛛 No				•	
Hydrophytic Vegetation resent? res ⊠ No Hydric Soils Present? Yes ⊠ No Wetland Hydrology Present? Yes ⊠ No		Is the Sar within a V	npled Are Vetland?	a Yes⊠ No[]
Remarks: This test plot was located within Parcel #2	2422059130, w	vithin Wetland I	. The vege	tation in this test plot consis	sted of shrub and herbaceous
species. This test plot met all three indicators, therefore	ore it meets the	e criteria of bein	g wetland.		
VEGETATION – Use scientific names of pl	ants.				
	Absolute	Dominant	Indicator	Dominance Test Works	sheet
<u>Tree Stratum</u> (Plot size: <u>30</u> ft radius) 1.	<u>% Cover</u> %	Species?	Status	Number of Dominant Spe	
	%	·		That Are OBL, FACW, or	
2. 3.	%	·			-
4.	%			Total Number of Domina	J (D)
50% = 20% =	%	=Total Cover		Species Across All Strata	a: ` ´ ´
		-		Dereent of Deminent Spe	
Sapling/Shrub Stratum (Plot size: <u>15 ft.</u> radius)				Percent of Dominant Spe That Are OBL, FACW, or	
1. Rubus spectabilis	80%	yes	FAC	Prevalence Index works	
2. Salix sp.	30%	yes	FACW	Total % Cover of:	Multiply by:
3.	%			OBL species	x 1=
4.	%			FACW species	x 2=
5.	%			FAC species	x 3=
$50\% = \frac{55}{20\%} = \frac{22}{5}$	110%	=Total Cover		FACU species	x 4=
Herb Stratum (Plot size: <u>5</u> ft radius) 1. Phalaris arundinacea	20%	yes	FACW	UPL species Column Totals:	x 5= (A) (B)
2.	<u> </u>	<u> </u>	17,000	Prevalence I	
3.	<u> </u>	·		Hydrophytic Vegetation	
4.	%				Hydrophytic Vegetation
5.	%			2 – Dominance Tes	
6.	%			3 - Prevalence Inde	
7	%			4 - Morphological A	
8	<u>%</u>	·			Remarks or on a separate
9 10.	<u>%</u> %	·		sheet)	accular Planta ¹
10 11.	<u> </u>				ascular Flattis
50% = 10 20% = 4	20%	=Total Cover		Problematic Hydro	phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 15 ft radius)		<u>.</u>			,,
1	%			¹ Indicators of hydric soil a	
2.	%			must be present, unless	disturbed or problematic.
50% = 20% =	%	=Total Cover			
	-	-		Hydrophytic	
				Vegetation Present?	Yes⊠ No⊡
% Bare Ground in Herb Stratum <u>0%</u>				Fiesent:	
Remarks:				1	

Profile Description: (Describe to the depth	needed to docur	ment the ind	icator or confir	m the a	bsence of indicators.)	
Depth Metrix		Dodov Foot	1700			
Depth Matrix (inches) Color (moist) %	Color (moist)	Redox Featu %		Loc ²	Texture	Remarks
0-16 10YR 2/1 90%	10YR 5/2	10%	<u> </u>	M	Silty Loam	Remains
<u> </u>		%	· ·			
<u> </u>		%				
<u>%</u>		%				
<u> </u>		%	<u> </u>			
<u>%</u>		<u>%</u> %	<u> </u>			
<u></u>		%	<u> </u>			
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix		or Coated Sand	Grains	. ² Location: PL=Pore	Lining M=Matrix
Hydric Soil Indicators: (Applicable to all LF					Indicators for Problemati	
Histosal (A1)	Sandy Redo		,	[2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped Mat	rix (S6)		[Red Parent Material (TF)	2)
Black Histic (A3)	Loamy Muck	y Mineral (F1) (except MLR/	A1) [Very Shallow Dark Surfa	ce (TF12)
Hydrogen Sulfide (A4)	Loamy Gleye	ed Matrix (F2)	1	[Other (Explain in Remark	ks)
Depleted Below Dark Surface (A11)	Depleted Ma	trix (F3)				
Thick Dark Surface (A12)	Redox Dark	Surface (F6)		3	Indicators of hydrophytic ve	
Sandy Mucky Minerals (S1)	Depleted Date	rk Surface (F	7)		Wetland hydrology must	
Sandy Gleyed Matrix (S4)	Redox Depresident	essions (F8)			unless disturbed or prob	lematic
Restrictive Layer (if present):						· · · · ·
Туре:						
Depth (inches): Remarks:				Hyd	ric Soil Present?	Yes⊠ No⊡
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (min. of one required; chec	k all that apply)				Secondary Indicate	ors (2 or more required)
Surface Water (A1)	Water-Staine	d Laavas (RC) (except MI R	A 1 2 /		Leaves (B9) (MLRA 1, 2,
High Water Table (A2)	and 4B)	d Leaves (Da		~ 1, 2, -	4A, and 4B	
\boxtimes Saturation (A3)	Salt Crust (B	11)			Drainage Patte	
Water Marks (B1)	Aquatic Inver		3)		Dry-Season Wa	
Sediment Deposits (B2)	Hydrogen Su		,		_ ;	ble on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhi			s (C3)	Geomorphic Po	
Algal Mat or crust (B4)	Presence of	•		0 (00)	Shallow Aquita	
☐ Iron Deposits (B5)	Recent Iron I				FAC Neutral Te	
Surface Soil Cracks (B6)	Stunted or St		. ,			unds (D6) (LRR A)
☐ Inundation Visible on Aerial Imagery (B7)	Other (Explain				Frost-Heave Hu	
Sparsely Vegetated Concave Surface (B8)			- /			
Field Observations:	·					· · · · · · · · · · · · · · · · · · ·
Surface Water Present? Yes	No 🖂 🛛 Dep	th (Inches):				
Water Table Present? Yes	No 🛛 🛛 Dep	th (Inches):		Wetla	and Hydrology Present?	
Saturation Present? Yes	No 🗌 🛛 Dep	th (Inches): (<u>)</u>			Yes 🛛 No 🗌
(Includes Capillary fringe)		nhoton		a) # c	ilabla	
Describe Recorded Data (Stream gauge, mor	ntoring well, aerial	photos, prev	ious inspections	s), if ava		
Remarks:						

Project/Site: Kingfisher Applicant/Owner: Dudek		City/Co	unty: <u>King</u> State:V		ing Date: <u>3/9/22</u> ng Point: TP23
Investigator(s): McGraw, Michele; Allison, Andrew		Sectio		p, Range: S24 T22 R05	ng i oliti. <u>11 20</u>
Landform (hillslope, terrace, etc.): Terrace				onvex, none): COnvex	Slope (%):8-15 %
Subregion (LRR): A2	Lat: 47.380				um: NAD83
Soil Map Unit Name: Alderwood gravelly sandy loam				NWI classification: None	
Are climatic / hydrologic conditions on the site typical	for this time of	year? Yes⊠	No (I	f no, explain Remarks.)	
Are Vegetation, Soil, or Hydrology significan				Circumstances" present? Yes⊠	No
Are Vegetation, Soil, or Hydrology naturally		,		any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	p showing ៖	sampling po	int locati	ons, transects, important	features, etc.
Hydrophytic Vegetation Present? Yes □ No Hydric Soils Present? Yes □ No Hydric Soils Present? Yes □ No	\boxtimes	Is the Sar within a V	npled Area Vetland?	a Yes⊡ No⊠	
Wetland Hydrology Present? Yes No Remarks: This test plot was located within Parcel #2		ast of Wetland		station in this test plot consisted	of shurb and berbaceous
species. This test plot did not meet all wetland indicat	ors, therefore				
VEGETATION – Use scientific names of pla					
Tree Stratum (Plot size:30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet	
1	%			Number of Dominant Species	
2.	%	·		That Are OBL, FACW, or FAC	·.
3	<u>%</u> %	·		Total Number of Dominant	2 (P)
4. 50% = 20% =	%	=Total Cover		Species Across All Strata:	<u>3</u> (B)
50 % = <u>20 % = </u>	/0				
				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: <u>15 ft.</u> radius)	2004		FACU	That Are OBL, FACW, or FAC	
 Oemleria cerasiformis Rubus spectabilis 	<u> </u>	yes ves	FACU FAC	Prevalence Index workshee Total % Cover of:	Multiply by:
3.	<u> </u>	yes	FAC	OBL species	x 1=
4.	%	·		FACW species	x 2=
5.	%	·		FAC species	
50% = 30 20% = 12	60%	=Total Cover		FACU species	_ x 3= _ x 4=
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5=
1. Polystichum munitum	30%	yes	FACU	Column Totals:	(A) (B)
2	%			Prevalence Index	
3	%			Hydrophytic Vegetation Indi	
4	%	·		1 – Rapid Test for Hydro	
5 6.	<u>%</u> %	·		_ 2 – Dominance Test is > □ 3 - Prevalence Index is :	
7	%	·		4 - Morphological Adapt	
8.	%	·		supporting data in Rema	
9.	%	·		sheet)	1
10.	%			5 - Wetland Non-Vascul	ar Plants ¹
11	%				
$50\% = \frac{15}{20\%} = \frac{6}{20\%}$	30%	=Total Cover		Problematic Hydrophytic	c Vegetation ¹ (Explain)
<u>Woody Vine Stratum</u> (Plot size: <u>15</u> ft radius) 1.	%			¹ Indicators of hydric soil and w	votland hydrology
2.	%	·		must be present, unless distu	
	<u> </u>	=Total Cover			
50% = 20% =				Hydrophytic Vegetation	
% Bare Ground in Herb Stratum <u>0%</u>				Present?	Yes⊡ No⊠
Remarks:				1	

SOIL		Sampling Point: <u>T</u>
Profile Description: (Describe to the depth	needed to document the indicator or confir	rm the absence of indicators.)
Depth Matrix	Redox Features	
	Color (moist) % Type ¹	Loc ² Texture Remarks
0-16 10YR 2/1 100%	%	Silty Loam
<u> </u>	%	
	<u>%</u> %	
	<u> </u>	
///	<u>%</u>	
<u> </u>		
%	%	
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered or Coated Sand	d Grains. ² Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all LF	RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils
Histosal (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLR)	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Minerals (S1)	Depleted Dark Surface (F7)	Wetland hydrology must be present, unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed of problematic
Restrictive Layer (if present):		
_		
Type:		
Depth (inches):		Hydric Soil Present? Yes□ No⊠
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:	k all that apply)	
Primary Indicators (min. of one required; chec		Secondary Indicators (2 or more require
Surface Water (A1)	Water-Stained Leaves (B9) (except MLR	
High Water Table (A2)	and 4B)	4A, and 4B)
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery
Drift Deposits (B3)	Oxidized Rhizospheres along Living Root	s (C3) Geomorphic Position (D2)
Algal Mat or crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils (C6)	FAC Neutral Test (D5)
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRR A)	Raised Ant Mounds (D6) (LRR A)
□ Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)		
Field Observations:		
Surface Water Present? Yes	No 🛛 Depth (Inches):	
Water Table Present? Yes	No 🛛 Depth (Inches):	Wetland Hydrology Present?
Saturation Present? Yes	No 🛛 Depth (Inches):	Yes 🗌 No [
(Includes Capillary fringe)	An an an an an an an an an an an an an an) if available:
Describe Recorded Data (Stream dauge mor	NITORING WAIL SARISI NNOTOS NROVIOUS INSPACTION	
Describe Recorded Data (Stream gauge, mor	nitoring well, aerial photos, previous inspections	
Describe Recorded Data (Stream gauge, mor	litoring well, aerial photos, previous inspection:	<i>3</i> , ii available.
Describe Recorded Data (Stream gauge, mor	ntoring well, aerial photos, previous inspection:	
Describe Recorded Data (Stream gauge, mor Remarks:	ntoring well, aerial photos, previous inspection:	
	ntoring well, aerial photos, previous inspection:	
	ntoring well, aerial photos, previous inspection:	
	ntoring well, aerial photos, previous inspection:	

Project/Site: Kingfisher		City/Cou	unty: King		Sampling Date: 3/9/22
Applicant/Owner: Dudek			State: V		Sampling Point: TP24
Investigator(s): McGraw, Michele; Allison, Andrew				p, Range: S24 T22 R05	
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Concave	Slope (%): <u>8-15 %</u>
Subregion (LRR): A2	Lat: 47.380			2.1182821	Datum: NAD83
Soil Map Unit Name: Alderwood gravelly sandy loam,				NWI classification: None	
Are climatic / hydrologic conditions on the site typical f					
Are Vegetation, Soil, or Hydrology significant				Circumstances" present?	
Are Vegetation, Soil, or Hydrology naturally p				any answers in Remarks	
SUMMARY OF FINDINGS – Attach site map		ampling po	int locati	ons, transects, impo	ortant features, etc.
Hydrophytic Vegetation Present? Yes 🛛 No [ls the Sar	npled Area	2	
Hydric Soils Present? Yes 🛛 No [_	within a V		Yes⊠ No	
Wetland Hydrology Present? Yes 🛛 No [_
Remarks: This test plot was located within Parcel #24					sisted of tree, shrub, and
herbaceous species. This test plot met all three indicat	ors, therefore	it meets the cr	iteria of be	ing wetland.	
VECETATION lies scientific nomes of nig	nto				
VEGETATION – Use scientific names of pla	nts.				
	Absolute	Dominant	Indicator	Dominance Test Work	ksheet
Tree Stratum (Plot size: 30 ft radius)	% Cover	Species?	Status		
1. Alnus rubra	20%	yes	FAC	Number of Dominant S	
2	%			That Are OBL, FACW,	or FAC:
3	%			Total Number of Domin	t
4	%			Total Number of Domin Species Across All Stra	3 (B)
$50\% = \underline{10} \ 20\% = \underline{4}$	20%	=Total Cover		Species Across Air Stra	lla.
				Percent of Dominant Sp	pecies
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW,	
1. Rubus spectabilis	20%	yes	FAC	Prevalence Index wor	
2.	%			Total % Cover of	: Multiply by:
3.	%			OBL species	x 1=
4	%			FACW species	x 2=
5	%			FAC species	x 3=
$50\% = \underline{10} \ 20\% = \underline{4}$	20%	=Total Cover		FACU species	x 4=
Herb Stratum (Plot size: <u>5</u> ft radius)				UPL species	x 5=
1. Ranunculus repens	40%	yes	FAC	Column Totals:	(A) (B)
2	%				e Index = B/A=
3	%			Hydrophytic Vegetatio	
4.	%				r Hydrophytic Vegetation
5 6.	<u>%</u> %			2 – Dominance T □ 3 - Prevalence In	
0. 7.	<u>~~~</u> %				Adaptations ¹ (Provide
8.	<u>%</u>			supporting data in	n Remarks or on a separate
	0/			sheet)	
9				5 - Wetland Non-	Vascular Plants ¹
11.	<u> </u>				
50% = 20 20% = 8	40%	=Total Cover		Problematic Hvdr	ophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 15 ft radius)					, , , , , , , , , , , , , , , , , , ,
1 , ,	%			¹ Indicators of hydric soi	il and wetland hydrology
2.	%				s disturbed or problematic.
50% = 20% =	%	=Total Cover			·
3070 2070				Hydrophytic	
				Vegetation	
% Data Cround in Llath Stratum 200/				Present?	Yes 🛛 No 🗌
% Bare Ground in Herb Stratum <u>30%</u>					
Remarks:					

Devil Mark			he absence of indicators.)	
Depth Matrix	Redox Features			
(inches) Color (moist) %	Color (moist) % Typ	e ¹ Loc	² Texture	Remarks
0-16 10YR 2/1 90%	10YR 5/2 10% (Silty Loam	
%	%			
<u>%</u>	%			
<u>%</u>	%			
<u> </u>	%		;	- <u> </u>
<u> </u>	%			
<u>%</u>	<u>%</u>			
$\frac{1}{1}$ Type: C=Concentration, D=Depletion, RM=		otod Sond Cr	raina ² l agatian: DL Dar	- Lining M. Motrix
Hydric Soil Indicators: (Applicable to all Li		aled Sand Gr	ains. ² Location: PL=Por Indicators for Problema	
Histosal (A1)	Sandy Redox (S5)		2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (Th	F2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (exe	cent MI RA 1)	-	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Rema	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)			
Thick Dark Surface (A12)	Redox Dark Surface (F6)		³ Indicators of hydrophytic v	vagetation and
			Wetland hydrology mus	
Sandy Mucky Minerals (S1)	Depleted Dark Surface (F7)		unless disturbed or prol	
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)			
Restrictive Layer (if present):				
Times				
Type:			Hydric Soil Present?	Yes⊠ No⊡
Depth (inches): Remarks:			Hydric Soli Fresent?	
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (min. of one required; chec	ck all that apply)		Secondary Indica	
Surface Water (A4)				tors (2 or more required)
	Water Steined Leoves (P0)			tors (2 or more required)
Surface Water (A1)	Water-Stained Leaves (B9) (ex	cept MLRA 1		Leaves (B9) (MLRA 1, 2,
High Water Table (A2)	and 4B)	cept MLRA 1	4A, and 4	d Leaves (B9) (MLRA 1, 2, B)
☑ High Water Table (A2)☑ Saturation (A3)	and 4B)	cept MLRA 1	4A, and 4 Drainage Patter	d Leaves (B9) (MLRA 1, 2, B) erns (B10)
 ☑ High Water Table (A2) ☑ Saturation (A3) □ Water Marks (B1) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	cept MLRA 1	4A, and 4 ☐ Drainage Patt ☐ Dry-Season W	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2)
 ➢ High Water Table (A2) ➢ Saturation (A3) □ Water Marks (B1) □ Sediment Deposits (B2) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	-	4A, and 4I ☐ Drainage Patt ☐ Dry-Season W ☐ Saturation Vis	d Leaves (B9) (MLRA 1, 2, B) erns (B10) /ater Table (C2) ible on Aerial Imagery (C9)
 High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L	iving Roots (C	4A, and 4E	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2)
 High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4)	iving Roots (C	4A, and 4E	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3)
 High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or crust (B4) Iron Deposits (B5) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	iving Roots (C Soils (C6)	4A, and 4E Drainage Patte Dry-Season W Saturation Vis Geomorphic P Shallow Aquita FAC Neutral T	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Fest (D5)
 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) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1)	iving Roots (C Soils (C6)	4A, and 4E	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Fest (D5) bunds (D6) (LRR A)
 ➢ 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) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)	iving Roots (C Soils (C6)	4A, and 4E Drainage Patte Dry-Season W Saturation Vis Geomorphic P Shallow Aquita FAC Neutral T	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Fest (D5) bunds (D6) (LRR A)
 ➢ 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) ➢ Sparsely Vegetated Concave Surface (B8) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)	iving Roots (C Soils (C6)	4A, and 4E	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Fest (D5) bunds (D6) (LRR A)
 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) Sparsely Vegetated Concave Surface (B8 Field Observations: 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks))	iving Roots (C Soils (C6)	4A, and 4E	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Fest (D5) bunds (D6) (LRR A)
 ➢ 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) ➢ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes ⊠ 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5	iving Roots (C Soils (C6)) (L RR A)	4A, and 4I Drainage Patte Dry-Season W Saturation Vis Geomorphic P Shallow Aquita FAC Neutral T Raised Ant Mo Frost-Heave F	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Fest (D5) bunds (D6) (LRR A)
 ➢ 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) ➢ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes ⊠ Water Table Present? Yes ⊠ 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5 No Depth (Inches): 0	iving Roots (C Soils (C6)) (L RR A)	4A, and 4E	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Test (D5) bunds (D6) (LRR A) Hummocks (D7)
 ➢ 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) ➢ Sparsely Vegetated Concave Surface (B8 Field Observations: Surface Water Present? Yes ⊠ Water Table Present? Yes ⊠ Saturation Present? Yes ⊠ 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5	iving Roots (C Soils (C6)) (L RR A)	4A, and 4I Drainage Patte Dry-Season W Saturation Vis Geomorphic P Shallow Aquita FAC Neutral T Raised Ant Mo Frost-Heave F	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Fest (D5) bunds (D6) (LRR A)
 ➢ 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) ○ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes ⊠ Water Table Present? Yes ⊠ Saturation Present? Yes ⊠ Saturation Present? Yes ⊠ (Includes Capillary fringe) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5 No Depth (Inches): 0 No Depth (Inches): 0	iving Roots (C Soils (C6)) (LRR A) V	4A, and 4I Drainage Patte Dry-Season W Saturation Vis Saturation Vis Shallow Aquita FAC Neutral T Raised Ant Me Frost-Heave H Vetland Hydrology Present?	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Test (D5) bunds (D6) (LRR A) Hummocks (D7)
 ➢ 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) ⓒ Sparsely Vegetated Concave Surface (B8 Field Observations: Surface Water Present? Yes ⊠ Water Table Present? Yes ⊠ Saturation Present? Yes ⊠ 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5 No Depth (Inches): 0 No Depth (Inches): 0	iving Roots (C Soils (C6)) (LRR A) V	4A, and 4I Drainage Patte Dry-Season W Saturation Vis Saturation Vis Shallow Aquita FAC Neutral T Raised Ant Me Frost-Heave H Vetland Hydrology Present?	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Test (D5) bunds (D6) (LRR A) Hummocks (D7)
 ➢ 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) ○ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes ⊠ Water Table Present? Yes ⊠ Saturation Present? Yes ⊠ Saturation Present? Yes ⊠ (Includes Capillary fringe) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5 No Depth (Inches): 0 No Depth (Inches): 0	iving Roots (C Soils (C6)) (LRR A) V	4A, and 4I Drainage Patte Dry-Season W Saturation Vis Saturation Vis Shallow Aquita FAC Neutral T Raised Ant Me Frost-Heave H Vetland Hydrology Present?	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Test (D5) bunds (D6) (LRR A) Hummocks (D7)
 ➢ 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) ○ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes ⊠ Water Table Present? Yes ⊠ Saturation Present? Yes ⊠ Saturation Present? Yes ⊠ (Includes Capillary fringe) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5 No Depth (Inches): 0 No Depth (Inches): 0	iving Roots (C Soils (C6)) (LRR A) V	4A, and 4I Drainage Patte Dry-Season W Saturation Vis Saturation Vis Shallow Aquita FAC Neutral T Raised Ant Me Frost-Heave H Vetland Hydrology Present?	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Test (D5) bunds (D6) (LRR A) Hummocks (D7)
 ➢ 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) ○ Sparsely Vegetated Concave Surface (B8 Field Observations: Surface Water Present? Yes ⊠ Water Table Present? Yes ⊠ Saturation Present? Yes ⊠ Saturation Present? Yes ⊠ (Includes Capillary fringe) 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5 No Depth (Inches): 0 nitoring well, aerial photos, previous i	iving Roots (C Soils (C6)) (LRR A) V	4A, and 4I Drainage Patte Dry-Season W Saturation Vis Saturation Vis Shallow Aquita FAC Neutral T Raised Ant Me Frost-Heave H Vetland Hydrology Present?	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Test (D5) bunds (D6) (LRR A) Hummocks (D7)
 ☐ 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) ☐ Sparsely Vegetated Concave Surface (B8 Field Observations: Surface Water Present? Yes ⊠ Water Table Present? Yes ⊠ Saturation Present? Yes ⊠ Saturation Present? Yes ⊠ (Includes Capillary fringe) Describe Recorded Data (Stream gauge, more 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5 No Depth (Inches): 0 nitoring well, aerial photos, previous i	iving Roots (C Soils (C6)) (LRR A) V	4A, and 4I Drainage Patte Dry-Season W Saturation Vis Saturation Vis Shallow Aquita FAC Neutral T Raised Ant Me Frost-Heave H Vetland Hydrology Present?	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Test (D5) bunds (D6) (LRR A) Hummocks (D7)
 ☐ 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) ☐ Sparsely Vegetated Concave Surface (B8 Field Observations: Surface Water Present? Yes ⊠ Water Table Present? Yes ⊠ Saturation Present? Yes ⊠ Saturation Present? Yes ⊠ (Includes Capillary fringe) Describe Recorded Data (Stream gauge, more 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5 No Depth (Inches): 0 nitoring well, aerial photos, previous i	iving Roots (C Soils (C6)) (LRR A) V	4A, and 4I Drainage Patte Dry-Season W Saturation Vis Saturation Vis Shallow Aquita FAC Neutral T Raised Ant Me Frost-Heave H Vetland Hydrology Present?	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Test (D5) bunds (D6) (LRR A) Hummocks (D7)
 ☐ 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) ☐ Sparsely Vegetated Concave Surface (B8 Field Observations: Surface Water Present? Yes ⊠ Water Table Present? Yes ⊠ Saturation Present? Yes ⊠ Saturation Present? Yes ⊠ (Includes Capillary fringe) Describe Recorded Data (Stream gauge, more 	and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along L Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1 Other (Explain in Remarks)) No Depth (Inches): 0.5 No Depth (Inches): 0 nitoring well, aerial photos, previous i	iving Roots (C Soils (C6)) (LRR A) V	4A, and 4I Drainage Patte Dry-Season W Saturation Vis Saturation Vis Shallow Aquita FAC Neutral T Raised Ant Me Frost-Heave H Vetland Hydrology Present?	d Leaves (B9) (MLRA 1, 2, B) erns (B10) Vater Table (C2) ible on Aerial Imagery (C9) Position (D2) ard (D3) Test (D5) bunds (D6) (LRR A) Hummocks (D7)

Project/Site: Kingfisher		City/Cou	unty: King		pling Date: <u>3/9/22</u>
Applicant/Owner: Dudek			State: V		oling Point: TP25
Investigator(s): McGraw, Michele; Allison, Andrew				p, Range: <u>S24 T22 R05</u>	
Landform (hillslope, terrace, etc.): Terrace				onvex, none): Convex	Slope (%): <u>8-15 %</u>
Subregion (LRR): A2	Lat: 47.38				atum: NAD83
Soil Map Unit Name: Alderwood gravelly sandy loam				NWI classification: None	
Are climatic / hydrologic conditions on the site typical					7 C
Are Vegetation, Soil, or Hydrology significant				Circumstances" present? Yes	⊠ No∐
Are Vegetation, Soil, or Hydrology naturally				any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site may	o showing s	sampling po	int locati	ons, transects, importar	nt features, etc.
Hydrophytic Vegetation Present? Yes □ No Hydric Soils Present? Yes □ No		Is the Sar within a V	npled Area	a Yes⊡ No⊠	
Wetland Hydrology Present? Yes No	\boxtimes				
Remarks: This test plot was located within Parcel #2 species. This test plot did not meet all wetland indicat					ed of tree and herbaceous
VEGETATION – Use scientific names of pla	ants.				
Tree Stratum (Plat size:20 ft radius)	Absolute	Dominant	Indicator	Dominance Test Workshee	et
<u>Tree Stratum</u> (Plot size: <u>30</u> ft radius)	% Cover	Species?	Status	Number of Dominant Specie	
1. Pseudotsuga menziesii	50%	yes	FACU	That Are OBL, FACW, or FA	
2. <u>Ilex aquifolium</u>	30%	yes	FACU		
3	<u>%</u> %	·		Total Number of Dominant	2 (P)
	-	Total Causer		Species Across All Strata:	<u> </u>
50% = 40 $20% = 16$	80%	=Total Cover			
				Percent of Dominant Specie	S
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				That Are OBL, FACW, or FA	AC <u>0</u> (A/B)
1	%			Prevalence Index workshe	
2	%			Total % Cover of:	Multiply by:
3	%			OBL species	x 1=
4	%	·		FACW species	x 2= x 3= x 4=
5.	%			FAC species	x 3=
50% = 20% =	%	=Total Cover		FACU species	x 4=
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5=
1. Polystichum munitum	30%	yes	FACU	Column Totals:	
2	%	·		Prevalence Inde	
3	%	·		Hydrophytic Vegetation In	
4	%			1 – Rapid Test for Hyd	
5	%			2 – Dominance Test is	
6	%			3 - Prevalence Index is	
7	%			4 - Morphological Ada	
8	%	·			marks or on a separate
9	%	·		sheet)	
10	%	·		5 - Wetland Non-Vasc	ular Plants'
11	%				
$50\% = \frac{15}{12} 20\% = \frac{6}{10}$	30%	=Total Cover		Problematic Hydrophy	tic vegetation (Explain)
Woody Vine Stratum (Plot size: <u>15</u> ft radius)	0/				
1	<u>%</u> %			¹ Indicators of hydric soil and	
2		Total Causer		must be present, unless dist	turbed or problematic.
50% = 20% =	%	=Total Cover		Hydrophytic	
				Vegetation	
% Bare Ground in Herb Stratum 60%				Present?	Yes No
				I	
Remarks:					

SOIL								Sampling Point: TP25
Profile Desc	cription: (Desc	ribe to the dept	n needed to doo	ument the inc	licator or conf	irm the a	absence of indicators.)	
Depth	Matrix	¢		Redox Feat	ures			
· · · · · · · · · · · · · · · · · · ·	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-16	10YR 3/3	100%		%			Silty Loam	
. <u> </u>		%		%				
·		<u>%</u>		%				
<u> </u>		<u>%</u> %		%			·	
<u> </u>		<u> </u>		%				
		<u>%</u>		%				
		%		%				
		D=Depletion, RM				nd Grains	s. ² Location: PL=Pore	Lining, M=Matrix
		oplicable to all L			.)		Indicators for Problemati	c Hydric Soils
Histosal (· · ·		Sandy Red				2 cm Muck (A10)	0)
Histic Epi			Stripped N				Red Parent Material (TF:	
Black His	. ,				1) (except MLF	-	Very Shallow Dark Surfa	· ,
	n Sulfide (A4)			eyed Matrix (F2)		Other (Explain in Remarl	KS)
•	Below Dark Su	. ,		. ,			3 Indiantara of hydrophytic yr	actation and
	rk Surface (A12	,		k Surface (F6)			³ Indicators of hydrophytic ve Wetland hydrology must	
-	ucky Minerals (Dark Surface (F	-7)		unless disturbed or prob	
	eyed Matrix (S			pressions (F8)				
Restrictive	Layer (if prese	nt):						
Туре:								
Depth (inche	es):					Hyd	dric Soil Present?	Yes□ No⊠
Remarks:	,							
	0 Y							
HYDROLO		4						
-	drology Indica	one required; che	ok all that apply)					(0
		one required, crie	ck all that apply)				Secondary Indicate	ors (2 or more required)
Surface V					9) (except ML	RA 1, 2,		Leaves (B9) (MLRA 1, 2,
	er Table (A2)		and 4				4A, and 4B	
Saturation	. ,		Salt Crust	. ,			Drainage Patte	
U Water Ma				vertebrates (B1			Dry-Season Wa	
	t Deposits (B2)			Sulfide Odor (C				ble on Aerial Imagery (C9)
Drift Depo				-	long Living Roo	ots (C3)	Geomorphic Po	. ,
•	or crust (B4)			of Reduced Iro	. ,		Shallow Aquitar	. ,
Iron Depo	· · ·				Tilled Soils (C6	,	FAC Neutral Te	
	Soil Cracks (B6)				ts (D1) (LRR A	.)		unds (D6) (LRR A)
		rial Imagery (B7)		lain in Remark	s)		Frost-Heave Hu	ummocks (D7)
	0	cave Surface (B8	8)		. <u> </u>			
Field Obser								
Surface Wat		Yes		epth (Inches):		14/04/	and Undralam, Present?	
Water Table Saturation P		Yes □ Yes □		epth (Inches): epth (Inches):		weti	and Hydrology Present?	Yes 🗌 No 🕅
	pillary fringe)			eptir (inches).				
		tream gauge, mo	nitoring well, aer	ial photos, pre-	vious inspection	ns), if ava	ailable:	
	Υ.			· · ·	•			
Remarks:								

APPENDIX B: WETLAND RATING FORMS

RATING SUMMARY – Western Washington

Name of wetland (or ID #):Wetland ADate of site visit:03/09/2022Rated byAJ RendlemanTrained by Ecology?YDate of training11/2020HGM Class used for ratingDepressionalWetland has multiple HGM classes?YX

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	Improving Water Quality		H	Hydrologic			Habitat			
					Circle	the ap	prop	riate r	atings	
Site Potential	Н	М		Н	Μ	\bigcirc	Н	Μ	\bigcirc	
Landscape Potential	Н	M	L	Н	M	L	Н	M) L	
Value	(\mathbb{H})	М	L	Н	Μ	\bigcirc	Н	Μ		TOTAL
Score Based on Ratings		6			4			4		14

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,L 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	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	2
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	6
Map of the contributing basin	D 4.3, D 5.3	8
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	8
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	9
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	9

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which 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	H 2.1, H 2.2, H 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

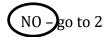
Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 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

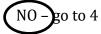
1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

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 A

YES – The wetland class is **Riverine**

NO - go to 6 **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. <u>Characteristics of surface water outflows from the wetland</u> : 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. points = 1	2
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. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > ¹ / ₁₀ of area points = 1 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 points = 4 Area seasonally ponded is > ½ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland	2
Total for D 1 Add the points in the boxes above	4
Rating of Site Potential If score is: 12-16 = H 6-11 = M X 0-5 = L Record the rating on the first p D 2.0. Does the landscape have the potential to support the water quality function of the site?	age
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0 Roadside ditch prevents stormwater entering wetland	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	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 = HX1 or 2 = M0 = L Record the rating on the f D 3.0. Is the water quality improvement provided by the site valuable to society? Image: Content of the state of the stat	irst page
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	0
303(d) list? Yes = 1 No = 0	
303(d) list?Yes = 1No = 0D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?Yes = 1No = 0	1
	1 2

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

DEPRESSIONAL AND FLATS WETLANDS				
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation				
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) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	2			
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 1 Marks of ponding less than 0.5 ft (6 in) 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 upstream basin 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 points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5	3			
Total for D 4 Add the points in the boxes above	5			
Rating of Site Potential If score is: $12-16 = H$ $6-11 = M$ X $0-5 = L$ Record the rating on the	first page			
D 5.0. Does the landscape have the potential to support hydrologic functions of the site? D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	0			
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1			
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	1			
Total for D 5Add the points 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	first page			
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 matches conditions around the wetland unit being rated.</i> Do not add points. <u>Choose the highest score if more than one condition is met</u>. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. <i>Explain why</i> points = 0 	0			
There are no problems with flooding downstream of the wetland.				
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0			
Total for D 6Add the points in the boxes above	0			

Rating of Value If score is: 2-4 = H 1 = M X 0 = L

	that site functions to pro	н	
1.0. Does the site have the potentia	l to provide habitat?		
Cowardin plant classes in the wetla of ¼ ac or more than 10% of the unit Aquatic bed Emergent Scrub-shrub (areas where shru Forested (areas where trees ha If the unit has a Forested class	nd. Up to 10 patches may be c it if it is smaller than 2.5 ac. Aa ibs have > 30% cover) ave > 30% cover) 5, check if: 5 strata (canopy, sub-canopy,	d strata within the Forested class. Check the ombined for each class to meet the threshold Id the number of structures checked. 4 structures or more: points = 4 3 structures: points = 2 2 structures: points = 1 1 structure: points = 0 shrubs, herbaceous, moss/ground-cover)	0
1.2. Hydroperiods			
Check the types of water regimes (r more than 10% of the wetland or ¼ Permanently flooded or inundat Occasionally flooded or inundat Occasionally flooded or inundat Occasionally flooded or inundat Occasionally flooded or inundat Occasionally flooded or inundat Occasionally flooded or inundat Occasionally flowing stream or Seasonally flowing stream in, c Lake Fringe wetland Freshwater tidal wetland	ac to count (<i>see text for descr</i> ated ed ated r river in, or adjacent to, the w	4 or more types present: points = 3 3 types present: points = 2 2 types present: points = 1 1 type present: points = 0	1
the species. Do not include Eurasi	es can be combined to meet th	e size threshold and you do not have to name purple loosestrife, Canadian thistle	1
If you counted: > 19 species 5 - 19 species		points = 2 points = 1	
<pre>< 5 species</pre>		points = 0	
1.4. Interspersion of habitats Decide from the diagrams below w	(can include open water or mu	owardin plants classes (described in H 1.1), or Idflats) is high, moderate, low, or none. <i>If you</i>	0

H 1.5. Special habitat features:	
 Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i> 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 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present <i>(cut shrubs or trees that have not yet weathered where wood is exposed)</i> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated <i>(structures for egg-laying by amphibians)</i> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>) 	0
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 t	he first pag
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).Calculate:% undisturbed habitat $\underline{11.4} + [(\% \text{ moderate and low intensity land uses})21.3/2]\underline{10.7} = \underline{22.1\%}$ If total accessible habitat is:> $^{1}/_{3}$ (33.3%) of 1 km Polygonpoints = 320-33% of 1 km Polygonpoints = 210-19% of 1 km Polygonpoints = 1< 10% of 1 km Polygon	2
Calculate:% undisturbed habitat $\underline{11.4}$ + [(% moderate and low intensity land uses)21.3/2] $\underline{10.7}$ = 22.1%If total accessible habitat is:> $^{1}/_{3}$ (33.3%) of 1 km Polygonpoints = 320-33% of 1 km Polygonpoints = 2	2

 Total for H 2

 Rating of Landscape Potential If score is:

 4-6 = H

 X

 1-3 = M

≤ 50% of 1 km Polygon is high intensity

Record the rating on the first page

3

points = 0

Add the points in the boxes above

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 	0
 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 points = 1	
Site does not meet any of the criteria above	

Rating of Value	If score is:	2 = H	1 = M	X 0=1
hating of value	II SCOLE IS.	<u> </u>	T = IVI	<u> </u>

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.
- **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.
- <u>Snags and Logs</u>: 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,	
 With a salinity 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 or Educational, Environmental, or 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 contiguous freshwater wetlands. Yes = Category I No = Category II	
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 – to to SC 2.3 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	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	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
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 – o 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 over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on tog of a lake or	
pond? Yes – Go to SC 3.3 No =)s not a bog	
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
plant species in Table 4 are present, the wetland is a bog. 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	

SC 4.0. Forested Wetlands		
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA		
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate		
the wetland based on its functions.		
— Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered		
canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of		
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.		
— Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the		
species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).		
Yes = Category I No = Not a forested wetland for this section	Cat. I	
SC 5.0. Wetlands in Coastal Lagoons		
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?		
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from		
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)		
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I	
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon		
SC 5.1. Does the wetland meet all of the following three conditions?		
— 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	
— 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.		
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)		
Yes = Category I No = Category II		
SC 6.0. Interdunal Wetlands		
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.		
In practical terms that means the following geographic areas:		
X Long Beach Peninsula: Lands west of SR 103		
 — Grayland-Westport: Lands west of SR 105 	Cat I	
 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 		
Yes – Go to SC 6.1 No = not an interdunal wetland for rating		
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	Cat. II	
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?		
Yes = Category II No – Go to SC 6.3	Cat. III	
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?	-	
Yes = Category III No = Category IV		
	Cat. IV	
Category of wetland based on Special Characteristics		
If you answered No for all types, enter "Not Applicable" on Summary Form		

Wetland name or number \underline{A}

This page left blank intentionally

RATING SUMMARY – Western Washington

Name of wetland (or ID #):Wetland B and FDate of site visit:03/09/2022Rated byAJ RendlemanTrained by Ecology?YDate of training11/2020HGM Class used for ratingDepressionalWetland has multiple HGM classes?YX

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		mprov Iter Q	•	H	lydrolo	ogic		Habit	at	
					Circle	the ap	prop	riate ra	atings	
Site Potential	Н	Μ	\bigcirc	Н	M	L	Н	Μ	\bigcirc	
Landscape Potential	Н	M	Ŭ	Н	M	L	Н	M	L	
Value	(\mathbb{H})	Μ	L	Н	М	\bigcirc	Н	М	\bigcirc	TOTAL
Score Based on Ratings		6			5			4		15

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	1 11
Interdunal	I II III IV
None of the above	

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	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	6&7
Map of the contributing basin	D 4.3, D 5.3	8
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	8
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	9
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	9

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which 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	H 2.1, H 2.2, H 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

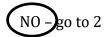
Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 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

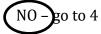
1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

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 B & F

YES – The wetland class is **Riverine**

NO - go to 6 **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. <u>Characteristics of surface water outflows from the wetland</u> : 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 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1	3
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants(Emergent, Scrub-shrub, and/or Forested Cowardin classes): points = 5 Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed, plants > $\frac{1}{20}$ of areapoints = 3 points = 1 points = 1 Wetland has persistent, ungrazed plants < $\frac{1}{10}$ of areapoints = 1 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 wetlandArea seasonally ponded is > ½ total area of wetlandpoints = 4Area seasonally ponded is > ½ total area of wetlandpoints = 2Area seasonally ponded is < ¼ total area of wetland	2
Total for D 1Add the points in the boxes above	5
Rating of Site Potential If score is: <u>12-16 = H</u> <u>6-11 = M</u> <u>X</u> <u>0-5 = L</u> Record the rating on the first particular terms of the statement	age
D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?Yes = 1No = 0Roadside ditch prevents stormwater entering wetland	0
	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	T
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?Yes = 1No = 0D 2.3. Are there septic systems within 250 ft of the wetland?Yes = 1No = 0	0
D 2.3. Are there septic systems within 250 ft of the wetland?Yes = 1No = 0D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?	0
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 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 Yes = 1 No = 0 Total for D 2 Add the points in the boxes above Rating of Landscape Potential If score is: 3 or 4 = H X 1 or 2 = M 0 = L Record the rating on the filled in the second the second the rating on the filled in the second the	0 0 1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 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 Total for D 2 Add the points in the boxes above	0 0 1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 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 Total for D 2 Add the points in the boxes above Rating of Landscape Potential If score is:3 or 4 = H X_1 or 2 = M O = L Record the rating on the fill 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	0 0 1 irst page
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 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 Total for D 2 Add the points in the boxes above Rating of Landscape Potential If score is:3 or 4 = H X_1 or 2 = M O = L Record the rating on the fill 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? Yes = 1 No = 0	0 0 1 irst page 0

Rating of Value If score is: X 2-4 = H 1 = M 0 = L

Record the rating on the first page

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation D.4.0. Does the site have the potential to reduce flooding and erosion? D.4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression of flat depression with no surface water leaving it (no outlet) points = 4 Wetland has an intermittently flowing stream or dich., 0R highly constricted permanently flowing outlet points = 0 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0 D.4.2. Degit to fostorage during wet periodics Estimate the height of pointing above the bottom of the outlet. For wetlands with no outlet, measure from the surface or bottom of outlet points = 7 Marks of pointing is a The advertant is a firm surface or bottom of outlet points = 3 The wetland is a "headward" wetland wetland is a flat depressions on the surface that trap water points = 1 Marks of pointing less than 0.5 ft (6 in) 0 D.4.3. Contribution of the wetland to storage in the watershed: Estimate the right of the area of upstream basin contribution of the wating to storage in the watershed: Estimate the right of the area of upstream basin contribution of the wating to storage in the watershed: Estimate the right of the area of upstream basin contributing surface water to the wetland to the area of the unit points = 0 5 D 5.1. Solo Sol The less in the Flats class points = 1 Points = 0 0 D 5.1. Solo Sol the landscape have the potential to support hydrologic functions of the site? 0 0 D 5.2. Is 5.10% of the area within 150 ft of the wetland in and uses that generate excess runof? Yes = 1 No = 0	DEPRESSIONAL AND FLATS WETLANDS	
D 4.1. Characteristics of surface water outflows from the wetland: points = 4 Wetland has an intermittently flowing stream or ditch. OR highly constricted permanently flowing ulter points = 2 4 Wetland has an intermittently flowing stream or ditch. OR highly constricted permanently flowing points = 0 4 D 4.2. Depth of storage during wet periods; Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, messure from the surface of permanent water or if dry, the decest port. 60 D 4.2. Depth of storage during wet periods; Estimate the height of ponding above the bottom of outlet points = 3 0 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 3	Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradat	ion
Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 1 points = 4 Wetland has an intermittently flowing stream or ditch, 0R highly constructed permanently flowing outlet points = 1 points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0 points = 0 D 4.2. Depth of storage during wet periods; Estimate the height of ponding dove the bottom of the outlet. For wetlands with no autlet, measure from the surface or bottom of outlet points = 5 points = 5 Marks of ponding betwater" wetland points = 1 o Marks of ponding leavement? It to < 31 ftrom surface or bottom of outlet points = 3	D 4.0. Does the site have the potential to reduce flooding and erosion?	
mith 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 points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	Wetland is a depression or flat depression with no surface water leaving it (no outlet)points = 4Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditchpoints = 1	4
contributing surface water to the wetland to the area of the will munit itself. The area of the basin is lass than 10 times the area of the unit points = 5points = 5The area of the basin is more than 100 times the area of the unit points = 0points = 0Entire wetland is in the Flats class points = 5points = 5Total for D 4Add the points in the boxes above9Rating of Site Potential If score is: D 5.0. Does the landscape have the potential to support hydrologic functions of the site?0D 5.1. Does the wetland receive stormwater discharges? D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 01D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at > > 1 residence/a, urban, commercial, agriculture, etc.)? Add the points in the boxes above2Rating of Landscape Potential If score is: B 6.0. Are the hydrologic functions provided by the site valuable to society?1D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding problems are in a sub-basin farther down-gradient. points = 1 points = 1<td>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 outletpoints = 7Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet</td>points = 5Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	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 outletpoints = 7Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	0
Rating of Site Potential If score is: 12-16 = H X_6-11 = M 0-5 = L Record the rating on the first page D 5.0. Does the landscape have the potential to support hydrologic functions of the site? D 0 0 D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0 1 D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0 1 D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0 1 D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0 1 Total for D 5 Add the points in the boxes above 2 2 Rating of Landscape Potential If score is: 3 = H X_1 or 2 = M 0 = L Record the rating on the first page D 6.0. Are the hydrologic functions provided by the site valuable to society? 0 1 Record the rating on the first page D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if	contributing surface water to the wetland to the area of the wetland unit itself.The area of the basin is less than 10 times the area of the unitpoints = 5The area of the basin is 10 to 100 times the area of the unitpoints = 3The area of the basin is more than 100 times the area of the unitpoints = 0Entire wetland is in the Flats classpoints = 5	_
D 5.0. Does the landscape have the potential to support hydrologic functions of the site? 0 D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0 1 D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0 1 D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0 1 Total for D 5 Add the points in the boxes above 2 Rating of Landscape Potential If score is:3 = H _X_1 or 2 = M0 = L Record the rating on the first page D 6.0. Are the hydrologic functions provided by the site valuable to society? 0 0 D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the description that best matches conditions around the wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): 0 • Flooding problems are in a sub-basin farther down-gradient of unit. points = 1 0 Flooding from groundwater is an issue in the sub-basin. points = 1 0 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water sto		-
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? Yes = 1 No = 0 1 D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0 1 Total for D 5 Add the points 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 first page D 6.0. Are the hydrologic functions provided by the site valuable to society? 0 0 0 0 D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland control add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): 0 • Flooding problems are in a sub-basin farther down-gradient of unit. points = 1 0 Flooding from groundwater is an issue in the sub-basin. points = 1 0 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why		first page
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 01D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 01D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 01D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 01D clal for D 5Add the points in the boxes above2Rating of Landscape Potential If score is:3 = H _X_1 or 2 = M0 = LRecord the rating on the first pageD 6.0. Are the hydrologic functions provided by the site valuable to society?0D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):0• Flooding occurs in a sub-basin that is immediately down-gradient of unit.points = 2• Surface flooding problems are in a sub-basin farther down-gradient.points = 1Flooding from groundwater is an issue in the sub-basin.points = 1The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explai		
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0 1 Total for D 5 Add the points in the boxes above 2 Rating of Landscape Potential If score is:3 = HX_1 or 2 = M0 = L Record the rating on the first page D 6.0. Are the hydrologic functions provided by the site valuable to society? 0 D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): 0 • Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 points = 1 • Surface flooding problems are in a sub-basin farther down-gradient. points = 1 0 Flooding from groundwater is an issue in the sub-basin. points = 1 0 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 points = 0 • Surface flooding downstream of the wetland. points = 0 0 • D 6.2. Has the site been identified as important for flood storage or floo		-
>1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0 1 Total for D 5 Add the points in the boxes above 2 Rating of Landscape Potential If score is:3 = H _X_1 or 2 = M0 = L Record the rating on the first page D 6.0. Are the hydrologic functions provided by the site valuable to society? D D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): 0 • Flooding problems are in a sub-basin farther down-gradient of unit. points = 2 0 • Surface flooding problems are in a sub-basin. points = 1 0 Flooding from groundwater is an issue in the sub-basin. points = 1 0 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 0 D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0 0		1
Rating of Landscape Potential If score is:3 = HX 1 or 2 = M0 = L Record the rating on the first page D 6.0. Are the hydrologic functions provided by the site valuable to society? D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): • Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 • Surface flooding problems are in a sub-basin farther down-gradient. points = 1 0 Flooding from groundwater is an issue in the sub-basin. points = 1 0 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 points = 0 D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0 0	>1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	1
D 6.0. Are the hydrologic functions provided by the site valuable to society? D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 There are no problems with flooding downstream of the wetland. D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0 		
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0 	Rating of Landscape Potential If score is:3 = H X _ 1 or 2 = M 0 = L Record the rating on the	first page
the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): • Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 • • Surface flooding problems are in a sub-basin farther down-gradient. points = 1 •	D 6.0. Are the hydrologic functions provided by the site valuable to society?	
There are no problems with flooding downstream of the wetland. Display=0 Display=0 <td>the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):• Flooding occurs in a sub-basin that is immediately down-gradient of unit.points = 2• Surface flooding problems are in a sub-basin farther down-gradient.points = 1Flooding from groundwater is an issue in the sub-basin.points = 1</td> <td>0</td>	the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):• Flooding occurs in a sub-basin that is immediately down-gradient of unit.points = 2• Surface flooding problems are in a sub-basin farther down-gradient.points = 1Flooding from groundwater is an issue in the sub-basin.points = 1	0
Yes = 2 No = 0		
Total for D 6Add the points in the boxes above 0		0
	Total for D 6Add the points in the boxes above	0

Rating of Value If score is: 2-4 = H 1 = M X 0 = L

H 1.0. Does the site have the	licators that site functions to prov potential to provide habitat?		
H 1.1. Structure of plant commun Cowardin plant classes in f of ¼ ac or more than 10% Aquatic bed Aquatic bed Scrub-shrub (areas w Forested (areas wher The Forested class ha	hity: Indicators are Cowardin classes and the wetland. Up to 10 patches may be co of the unit if it is smaller than 2.5 ac. Add here shrubs have > 30% cover) e trees have > 30% cover) sted class, check if:	strata within the Forested class. Check the mbined for each class to meet the threshold a the number of structures checked. 4 structures or more: points = 4 3 structures: points = 2 2 structures: points = 1 1 structure: points = 0 shrubs, herbaceous, moss/ground-cover)	0
H 1.2. Hydroperiods Check the types of water r more than 10% of the wet Permanently flooded Occasionally flooded of Occasionally flooded of Saturated only Permanently flowing Seasonally flowing str Lake Fringe wetland Freshwater tidal wet	egimes (hydroperiods) present within th land or ¼ ac to count (<i>see text for descrij</i> or inundated or inundated or inundated stream or river in, or adjacent to, the we ream in, or adjacent to, the wetland	4 or more types present: points = 3 3 types present: points = 2 2 types present: points = 1 1 type present: points = 0	1
Different patches of the so	de Eurasian milfoil, reed canarygrass, p es cies	size threshold and you do not have to name	1
H 1.4. Interspersion of habitats Decide from the diagrams the classes and unvegetat	below whether interspersion among Co	wardin plants classes (described in H 1.1), or dflats) is high, moderate, low, or none. <i>If you</i>	0

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of checks is th</i> 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 ext over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m Stable steep banks of fine material that might be used by beaver or muskrat for c slope) OR signs of recent beaver activity are present <i>(cut shrubs or trees that har</i> <i>where wood is exposed)</i>	tends at least 3.3 ft (1 m) n) denning (> 30 degree	0
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in permanently or seasonally inundated <i>(structures for egg-laying by amphibians)</i> Invasive plants cover less than 25% of the wetland area in every stratum of plants <i>strata</i>)		
Total for H 1 Add the po	pints in the boxes above	2
Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L	Record the rating on	the first pag
H 2.0. Does the landscape have the potential to support the habitat functions of the	site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
<i>Calculate:</i> % undisturbed habitat <u>11.4</u> + [(% moderate and low intensity land uses):	21.3/210.7 = 22.1 %	
If total accessible habitat is:	, _ <u></u> , _	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon	points = 3	2
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 habitat <u>15.7</u> + [(% moderate and low intensity land uses)	54.4/2] 27.2 =42.9 %	
Undisturbed habitat > 50% of Polygon	points = 3	4
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	1
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)	0

Total for H 2

Add the points in the boxes above Rating of Landscape Potential If score is: ____4-6 = H ___X 1-3 = M ____<1 = L

Record the rating on the first page

3

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 	0
 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 points = 1	
Site does not meet any of the criteria above	

Dating of Value	If coore ic.	2 – 11	1 - 14	V 0-1	
Rating of Value	II SCOLE IS.	_2 - п	T = IVI	<u> </u>	

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.
- **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.
- <u>Snags and Logs</u>: 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 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 or Educational, Environmental, or 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 <i>Spartina</i>, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-memory appealed. 	Cat. I
mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category II	Cat. II
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 Vetlands of High Conservation Value? Yes – Go to SC 2.2 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category I No = Not a WHCV	Cat. I
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? <u>http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf</u> Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I No = Not a WHCV	
 SC 3.0. Bogs 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 – oo 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 over badrack, or an impormable bardpap such as slav or valcanic soils and results are floating. 	
 over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on the of a lake or 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 plant species in Table 4 are present, the wetland is a bog. 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 	Cat. I

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate	
the wetland based on its functions.	
- Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered	
canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.	
— Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the	
species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
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)	
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 (No = Not a wetland in a coastal lagoon	
SC 5.1. Does the wetland meet all of the following three conditions?	
— 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
— 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.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
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.	
In practical terms that means the following geographic areas:	
X Long Beach Peninsula: Lands west of SR 103	
 — Grayland-Westport: Lands west of SR 105 	Cat I
 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
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	Cat. II
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?	
Yes = Category II No – Go to SC 6.3	Cat. III
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?	
Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	

Wetland name or number <u>B & F</u>

This page left blank intentionally

RATING SUMMARY – Western Washington

Name of wetland (or ID #):Wetland CDate of site visit:03/09/2022Rated byAJ RendlemanTrained by Ecology?YDate of training11/2020HGM Class used for ratingDepressionalWetland has multiple HGM classes?YX

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 <u>IV</u> (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		nprov ter Q	•	H	ydrol	ogic		Habit	at	
					Circle	the ap	prop	riate ra	atings	
Site Potential	Н	Μ	\bigcirc	Н	\bigcirc	L	Н	М	\bigcirc	
Landscape Potential	Н	M	Ŭ	Н	\bigcirc	L	Н	M	L	
Value	H	Μ	L	Н	М	\bigcirc	Н	М	\bigcirc	TOTAL
Score Based on Ratings		6			5			4		15

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H

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	
None of the above	

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	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	6
Map of the contributing basin	D 4.3, D 5.3	8
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	8
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	9
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	9

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which 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	H 2.1, H 2.2, H 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

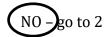
Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 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?

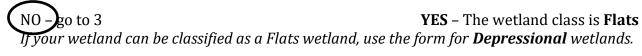


YES – the wetland class is **Tidal Fringe** – go to 1.1

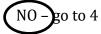
1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

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.



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.

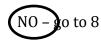
Wetland name or number <u>C</u>

NO – go 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.*

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.



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 being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
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. points = 1	3
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > ¹ / ₁₀ of area points = 1 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 points = 4 Area seasonally ponded is > ½ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland	0
Total for D 1 Add the points in the boxes above	3
Rating of Site Potential If score is: 12-16 = H 6-11 = M X 0-5 = L Record the rating on the first pa	ge
D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0 Roadside ditch prevents stormwater entering wetland Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	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
	1
Total for D 2Add the points in the boxes above	-
Total for D 2 Add the points in the boxes above Rating of Landscape Potential If score is:3 or 4 = HX1 or 2 = M0 = L Record the rating on the firm D 3.0. Is the water quality improvement provided by the site valuable to society?	_
Rating of Landscape Potential If score is: 3 or 4 = H X 1 or 2 = M 0 = L <i>Record the rating on the fire</i>	_
Rating of Landscape Potential If score is: 3 or 4 = H X 1 or 2 = M 0 = L Record the rating on the first 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	st page
Rating of Landscape Potential If score is: 3 or 4 = H X 1 or 2 = M 0 = L Record the rating on the first 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?	st page

Rating of Value If score is: X 2-4 = H 1 = M 0 = L

Record the rating on the first page

DEPRESSIONAL AND FLATS WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation		
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) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	4	
 D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0 	0	
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself. The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5	3	
Total for D 4Add the points in the boxes aboveRating of Site Potential If score is:12-16 = HX6-11 = M0-5 = LRecord the rating on the	7	
Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L Record the rating on the D 5.0. Does the landscape have the potential to support hydrologic functions of the site? Image: Comparison of the site? Image: Comparison of the site?	Jiist puye	
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? Yes = 1 No = 0	1	
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	1	
Total for D 5Add the points 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	first page	
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>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met</u>. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. <i>Explain why</i> points = 0 	0	
There are no problems with flooding downstream of the wetland.		
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0	
Total for D 6Add the points in the boxes above	0	

Rating of Value If score is: 2-4 = H 1 = M X 0 = L

1 0 Doos the site have the	e potential to provide habitat?	rovide important habitat	
	•		
Cowardin plant classes ir	•	nd strata within the Forested class. Check the combined for each class to meet the threshold Add the number of structures checked.	
Aquatic bed		4 structures or more: points = 4	
X Emergent		3 structures: points = 2	_
	where shrubs have > 30% cover)	2 structures: points = 1	0
	ere trees have > 30% cover)	1 structure: points = 0	
If the unit has a Fo	rested class, check if:		
	nas 3 out of 5 strata (canopy, sub-canop % within the Forested polygon	y, shrubs, herbaceous, moss/ground-cover)	
1.2. Hydroperiods			
	r regimes (hydroperiods) present within etland or ¼ ac to count (<i>see text for des</i> a	the wetland. The water regime has to cover criptions of hydroperiods).	
Permanently floode	d or inundated	4 or more types present: points = 3	
Seasonally flooded of	or inundated	3 types present: points = 2	
Occasionally flooded	l or inundated	2 types present: points = 1	0
X_Saturated only		1 type present: points = 0	U
Permanently flowin	g stream or river in, or adjacent to, the	wetland	
Seasonally flowing s	stream in, or adjacent to, the wetland		
Lake Fringe wetland	Ł	2 points	
Freshwater tidal we	atland	2 points	
1.3. Richness of plant species	, nt species in the wetland that cover at I	least 10 ft ²	
	-	the size threshold and you do not have to name	
	lude Eurasian milfoil, reed canarygrass,		1
If you counted: > 19 spec		points = 2	-
5 - 19 sp		points = 1	
< 5 spec		points = 0	
1.4. Interspersion of habitats		po	
		Cowardin plants classes (described in H 1.1), or	
		nudflats) is high, moderate, low, or none. <i>If you</i>	
-	classes or three classes and open water,		
()			
			0
None = 0 points	Low = 1 point	Moderate = 2 points	
All three diagrams			
Ill three diagrams			

H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. <i>The number of checks is</i> 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 over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (1		
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)		0
At least ¼ ac of thin-stemmed persistent plants or woody branches are present permanently or seasonally inundated <i>(structures for egg-laying by amphibian</i> Invasive plants cover less than 25% of the wetland area in every stratum of pla <i>strata</i>)	s)	
Total for H 1 Add the	e points in the boxes above	1
Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L	Record the rating on	the first pag
H 2.0. Does the landscape have the potential to support the habitat functions of t	he site?	
· · · ·		
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat <u>11.4</u> + [(% moderate and low intensity land use		
If total accessible habitat is:	(5)21.5/2 <u>]10.7</u> - <u>22.1%</u>	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon	points = 3	2
20-33% of 1 km Polygon	points = 3	-
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.		
<i>Calculate:</i> % undisturbed habitat <u>15.7</u> + [(% moderate and low intensity land us	es)54.4/2] 27.2 =42.9 %	
Undisturbed habitat > 50% of Polygon	points = 3	1
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	1
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		
5 50% of 4 loss Debugger is high interactive loss days		•
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	0

Total for H 2 Rating of Landscape Potential If score is: 4-6 = H X 1-3 = M ____<1 = L</pre>

 \leq 50% of 1 km Polygon is high intensity

Record the rating on the first page

3

points = 0

Add the points in the boxes above

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 	0
 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 points = 1	
Site does not meet any of the criteria above	

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

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.
- **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.
- <u>Snags and Logs</u>: 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 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 or Educational, Environmental, or 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 <i>Spartina</i> , 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	Cat. II
contiguous freshwater wetlands. Yes = Category I No = Category II	
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
Conservation Value? Yes – Go to SC 2.2 No – to to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? 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	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
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 ($No - 9$ o 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	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or	
pond? Yes – Go to SC 3.3 No = s not a bog	
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	
plant species in Table 4 are present, the wetland is a bog.	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	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate	
the wetland based on its functions.	
— Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered	
canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.	
 Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
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)	Cat. I
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 (No = Not a wetland in a coastal lagoon	Cat. I
SC 5.1. Does the wetland meet all of the following three conditions?	
— 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
— 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.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <i>If</i>	
you answer yes you will still need to rate the wetland based on its habitat functions.	
In practical terms that means the following geographic areas:	
X Long Beach Peninsula: Lands west of SR 103	Cat I
 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 	Cati
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
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	Cat. II
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?	
Yes = Category II No – Go to SC 6.3	Cat. III
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?	
Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	1

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

This page left blank intentionally

RATING SUMMARY – Western Washington

Name of wetland (or ID #):Wetland DDate of site visit:03/09/2022Rated byAJ RendlemanTrained by Ecology?YDate of training11/2020HGM Class used for ratingDepressionalWetland has multiple HGM classes?YX

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		nprov ter Qı	•	Н	ydrolo	ogic		Habit	at	
					Circle	the ap	prop	riate ro	itings	
Site Potential	Н	М	\bigcirc	Н	M	L	Н	Μ	\bigcirc	
Landscape Potential	Н	M	Ľ	Н	M	L	Н	M	L	
Value	H	Μ	L	Н	Μ	\bigcirc	Н	Μ	\bigcirc	TOTAL
Score Based on Ratings		6			5			4		15

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	

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	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	6
Map of the contributing basin	D 4.3, D 5.3	8
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	8
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	9
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	9

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which 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	H 2.1, H 2.2, H 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

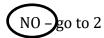
Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 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?

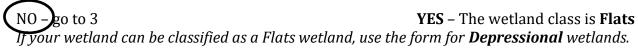


YES – the wetland class is **Tidal Fringe** – go to 1.1

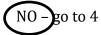
1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

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.



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 D

YES – The wetland class is **Riverine**

NO - go to 6 **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 within boundary of depression	Depressional
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:	Т
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. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > ¹ / ₁₀ of area points = 1 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 points = 4 Area seasonally ponded is > ½ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland	0
Total for D 1 Add the points in the boxes above	3
Rating of Site Potential If score is: 12-16 = H 6-11 = M X 0-5 = L Record the rating on the first D 2.0. Does the landscape have the potential to support the water quality function of the site?	page
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? Yes = 1 No = 0	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 2 Add the points in the boxes above	1
Rating of Landscape Potential If score is: <u>3 or 4 = H</u> <u>X</u> 1 or 2 = M <u>0 = L</u> Record the rating on the	first pag
0 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? Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? Yes = 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	2
if there is a TMDL for the basin in which the unit is found)? $Yes = 2 No = 0$	

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradat	ion
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) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	4
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outletpoints = 7Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	0
D 4.3. <u>Contribution of the wetland to storage in the watershed</u> : <i>Estimate the ratio of the area of upstream basin 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 points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5 Total for D 4 Add the points in the boxes above	3
Total for D 4 Add the points in the boxes above Rating of Site Potential If score is: 12-16 = H X_6-11 = M 0-5 = L Record the rating on the	-
D 5.0. Does the landscape have the potential to support hydrologic functions of the site?	, jiist puge
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? Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	1
Total for D 5Add the points 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	first page
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>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met</u>. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the 	0
water stored by the wetland cannot reach areas that flood. Explain whypoints = 0There 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 regional flood control plan? Yes = 2 No = 0	0
Total for D 6Add the points in the boxes above	0

Rating of Value If score is: 2-4 = H 1 = M X 0 = L

These questions apply to wetlands of all HGM classes.	
HABITAT FUNCTIONS- Indicators that site functions to provide important habitatH 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 the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold 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: points = 4 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon	0
H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (<i>see text for descriptions of hydroperiods</i>). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 X_Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points	0
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 name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species 5 - 19 species <pre></pre>	0
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. <i>If you</i> <i>have four or more plant classes or three classes and open water, the rating is always high.</i> None = 0 points All three diagrams in this row are HIGH = 3points Decide from the diagrams I decide from the diagrams Decide from the diagrams I decide from the diagrams Decide from the diagrams I decide 0	

 Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i> 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 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present <i>(cut shrubs or trees that have not yet weathered where wood is exposed)</i> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated <i>(structures for egg-laying by amphibians)</i> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>) 	
Fotal for H 1Add the points in the boxes above	0
Rating of Site Potential If score is: 15-18 = H 7-14 = M X 0-6 = L Record the rating	on the first pag
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).Calculate: % undisturbed habitat $\underline{11.4}$ + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1%If total accessible habitat is:> $^{1}/_{3}$ (33.3%) of 1 km Polygonpoints = 320-33% of 1 km Polygonpoints = 210-19% of 1 km Polygonpoints = 1	2
H 2.1. Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>). <i>Calculate:</i> % undisturbed habitat <u>11.4</u> + [(% moderate and low intensity land uses)21.3/2] <u>10.7</u> = <u>22.1%</u> If total accessible habitat is: > ¹ / ₃ (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2	2

Total for H 2 Rating of Landscape Potential If score is: 4-6 = H X 1-3 = M ____<1 = L</pre>

≤ 50% of 1 km Polygon is high intensity

Record the rating on the first page

3

points = 0

Add the points in the boxes above

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? <i>Choose only the highest score</i>	
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 	0
 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 points = 1	
Site does not meet any of the criteria above	

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

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.
- **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.
- <u>Snags and Logs</u>: 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 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 or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?	Cat. I
Yes = Category I No - Go to SC 1.2 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 <i>Spartina</i> , 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. — The wetland has at least two of the following features: tidal channels, depressions with open water, or	Cat. II
contiguous freshwater wetlands. Yes = Category I No = Category II	
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	
Conservation Value? Yes – Go to SC 2.2 No – to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? 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 SC 2.4 Liss WDNP identified the wetland within the $S/T/P$ as a Wetland of Link Concentration V(r a elliptic dition	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
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 – Go 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	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on tex of a lake or	
pond? Yes – Go to SC 3.3 No = s not a bog	
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	Cot
plant species in Table 4 are present, the wetland is a bog.	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	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate	
the wetland based on its functions.	
- Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered	
canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.	
 Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
	C -1 1
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
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)	Cat. I
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 (No = Not a wetland in a coastal lagoon	Cat. I
SC 5.1. Does the wetland meet all of the following three conditions?	
— 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
— 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.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
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.	
In practical terms that means the following geographic areas:	
X Long Beach Peninsula: Lands west of SR 103	Cathl
 Grayland-Westport: Lands west of SR 105 Ocean Shares, Canalist Lands west of SR 115 and SR 100 	Cat I
— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
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	Cat. II
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?	
Yes = Category II No – Go to SC 6.3	Cat. III
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?	
Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	

This page left blank intentionally

RATING SUMMARY – Western Washington

Name of wetland (or ID #):Wetland EDate of site visit:03/09/2022Rated byAJ RendlemanTrained by Ecology?YDate of training11/2020HGM Class used for ratingDepressionalWetland has multiple HGM classes?YX

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 <u>IV</u> (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	Improving Water Quality		Hydrologic		Habitat					
					Circle	the ap	prop	riate ro	atings	
Site Potential	Н	М	\bigcirc	Н	M	L	Н	М	\bigcirc	
Landscape Potential	Н	M	Ľ	Н	M	L	Н	M	L	
Value	H	М	L	Н	М	\bigcirc	Н	М	\bigcirc	TOTAL
Score Based on Ratings		6			5			4		15

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	_ ∨	
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	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	6
Map of the contributing basin	D 4.3, D 5.3	8
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	8
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	9
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	9

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which 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	H 2.1, H 2.2, H 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

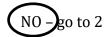
Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 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?

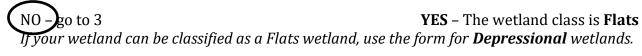


YES – the wetland class is **Tidal Fringe** – go to 1.1

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.



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 E

YES – The wetland class is **Riverine**

NO - go to 6 **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.

Water Quality Functions - Indicators that the site functions to improve water	r quality
D 1.0. Does the site have the potential to improve water quality?	
0 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 o p Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing ou p Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing po	oints = 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	
Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area Wetland has persistent, ungrazed plants > $\frac{1}{10}$ of area	in classes): points = 5 points = 3 points = 1 points = 0
Area seasonally ponded is > ¼ total area of wetland po	oints = 4 0 oints = 2 oints = 0
otal for D 1 Add the points in the boxe	es above 3
Rating of Site Potential If score is: 12-16 = H6-11 = MX0-5 = L Record the rating	on the first page
2.0. Does the landscape have the potential to support the water quality function of the site?	
	No = 0 0
2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1	No = 0 1
2.3. Are there septic systems within 250 ft of the wetland? Yes = 1	No = 0 0
2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D Source Yes = 1	2.3? 0
Fotal for D 2Add the points in the boxe	es above 1
Rating of Landscape Potential If score is: 3 or 4 = H X 1 or 2 = M 0 = L Record the re	ating on the first pag
0 3.0. Is the water quality improvement provided by the site valuable to society?	
O 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is a 303(d) list? Yes = 1	on the . No = 0 0
O 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? Yes = 1	No = 0 1
O 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (a	No = 0 2

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation	ion
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland: wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1 points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0 points = 0	4
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outletpoints = 7Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	0
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself. The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5	3
Total for D 4Add the points in the boxes aboveRating of Site Potential If score is:12-16 = HX6-11 = M0-5 = LRecord the rating on the	7
	jiist puge
D 5.0. Does the landscape have the potential to support hydrologic functions of the site? D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	0
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	1
Total for D 5Add the points 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	first page
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>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met</u>. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. <i>Explain why</i> points = 0 	0
There are no problems with flooding downstream of the wetland.	
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0
Total for D 6 Add the points in the boxes above	0

Rating of Value If score is: 2-4 = H 1 = M X 0 = L

H 1.0. Does the site have the p	icators that site functions to provo otential to provide habitat?	•	
Cowardin plant classes in t of ¼ ac or more than 10% of Aquatic bed Aquatic he wetland. Up to 10 patches may be co f the unit if it is smaller than 2.5 ac. Add here shrubs have > 30% cover) t trees have > 30% cover) ted class, check if:	strata within the Forested class. Check the mbined for each class to meet the threshold d the number of structures checked. 4 structures or more: points = 4 3 structures: points = 2 2 structures: points = 1 1 structure: points = 0 shrubs, herbaceous, moss/ground-cover)	0	
H 1.2. Hydroperiods Check the types of water re- more than 10% of the wetl Permanently flooded Seasonally flooded or Occasionally flooded o Saturated only Permanently flowing s	egimes (hydroperiods) present within th and or ¼ ac to count (<i>see text for descri</i> , or inundated nundated r inundated tream or river in, or adjacent to, the we eam in, or adjacent to, the wetland	4 or more types present: points = 3 3 types present: points = 2 2 types present: points = 1 1 type present: points = 0	0
Different patches of the sa	le Eurasian milfoil, reed canarygrass, p s cies	e size threshold and you do not have to name	1
1.4. Interspersion of habitats Decide from the diagrams the classes and unvegetate	below whether interspersion among Co	wardin plants classes (described in H 1.1), or dflats) is high, moderate, low, or none. <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	e 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 ext	ends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 n	n)	
Stable steep banks of fine material that might be used by beaver or muskrat for d	lenning (> 30 degree	0
slope) OR signs of recent beaver activity are present (cut shrubs or trees that hav where wood is exposed)	ve not yet weathered	
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	s (see H 1.1 for list of	
strata)		
Total for H 1 Add the pc	pints in the boxes above	1
Rating of Site Potential If score is:15-18 = H7-14 = MX0-6 = 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 habitat (include only habitat that directly abuts wetland unit).		
<i>Calculate:</i> % undisturbed habitat <u>11.4</u> + [(% moderate and low intensity land uses)2	1.3/2] <u>10.7</u> = 22.1%	
If total accessible habitat is:		
> ¹ /₃ (33.3%) of 1 km Polygon	points = 3	2
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.	·	
<i>Calculate:</i> % undisturbed habitat <u>15.7</u> + [(% moderate and low intensity land uses)]	54.4/2] 27.2 =42.9 %	
Undisturbed habitat > 50% of Polygon	points = 3	
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	1
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		
		-

Total for H 2

Add the points in the boxes above Rating of Landscape Potential If score is: ____4-6 = H ___X 1-3 = M ____<1 = L

Record the rating on the first page

0

3

points = (- 2)

points = 0

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? <i>Choose only the highest score</i>	
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 	0
 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 points = 1	
Site does not meet any of the criteria above	

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

> 50% of 1 km Polygon is high intensity land use

≤ 50% of 1 km Polygon is high intensity

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.
- **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.
- <u>Snags and Logs</u>: 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 greater than 0.5 ppt Yes –Go to SC 1.1	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or 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 <i>Spartina</i>, see page 25) At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-meruod encedered. 	Cat. I
mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category II	Cat. II
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 Conservation Value? Yes – Go to SC 2.2 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category I No = Not a WHCV	Cat. I
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? <u>http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf</u> Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I No = Not a WHCV	
 SC 3.0. Bogs 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 – o 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 over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to SC 3.3 No = s not a bog 	
 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 plant species in Table 4 are present, the wetland is a bog. 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 	Cat. I

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate</i>	
the wetland based on its functions.	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of 	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.	
— Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the	
species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).	
Yes = Category I No = Not a forested wetland for this section	Cat. I
Yes = Category 1 (NO = Not a forested wetland for this section	Cal. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
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)	Cat. I
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 (No = Not a wetland in a coastal lagoon	Cal. I
SC 5.1. Does the wetland meet all of the following three conditions?	
— 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
- 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.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
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.	
In practical terms that means the following geographic areas:	
X Long Beach Peninsula: Lands west of SR 103	
 — Grayland-Westport: Lands west of SR 105 	Cat I
 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
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	Cat. II
for the three aspects of function)? Yes = Category I No – Go to SC 6.2	catin
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
Yes = Category II No – Go to SC 6.3	Cat. III
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?	
Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	

This page left blank intentionally

RATING SUMMARY – Western Washington

Name of wetland (or ID #):Wetland GDate of site visit: 3/9/2022Rated byAJ RendlemanTrained by Ecology? YesXNoDate of training11/2020HGM Class used for ratingSlopeWetland has multiple HGM classes?YXN

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

OVERALL WETLAND CATEGORY IV (based on functions <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		mprov Iter Q	/ing uality	H	ydrol	ogic		Habit	at	
			_		Circle	the ap	prop	riate re	atings	
Site Potential	Н	Μ	\bigcirc	Н	Μ		Н	Μ		
Landscape Potential	Н	M	L	Н	Μ	\bigcirc	Н	M	L	
Value	(H)	Μ	L	Н	Μ	\bigcirc	Н	М	\bigcirc	TOTAL
Score Based on Ratings		6			3			4		13

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	Ι
Bog	Ι
Mature Forest	Ι
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	

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

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which 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	H 2.1, H 2.2, H 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	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	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	7
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	8
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	9
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	9

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.

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)

YES – Freshwater Tidal Fringe 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.

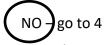
2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.



YES – The wetland class is Flats

If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.

3. 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)

- Does the entire wetland unit **meet all** of the following criteria? 4.
 - The wetland is on a slope (*slope can be very gradual*),
 - The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
 - The water leaves the wetland without being impounded.

NO – go to 5

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.

NO – go 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.

S 1.0. Does the site have the potential to improve water quality?		
 S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft ver 100 ft of horizontal distance) Slope is 1% or less Slope is > 1%-2% 	rtical drop in elevation for every points = 3 points = 2	2
Slope is > 2%-5% Slope is greater than 5%	points = 1 points = 0	
S 1.2. <u>The soil 2 in below the surface (or duff layer)</u> is true clay or true organic <i>(use</i>	NRCS definitions): Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutant Choose the points appropriate for the description that best fits the plants in have trouble seeing the soil surface (>75% cover), and uncut means not graze than 6 in.	the wetland. Dense means you	
Dense, uncut, herbaceous plants > 90% of the wetland area Dense, uncut, herbaceous plants > ½ of area	points = 6 points = 3	0
Dense, woody, plants > 1/2 of area	points = 2	
Dense, uncut, herbaceous plants > ¼ of area	points = 1	
Does not meet any of the criteria above for plants	points = 0	
Total for S 1	Add the points in the boxes above	2

S 2.1. Is > 10% of the area within 150 ft on the uphill side of the	wetland in land uses that generate nollutants?	
	Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources Yes = 1 No = 0		0
Total for S 2	Add the points in the boxes above	1

Rating of Landscape Potential If score is: X 1-2 = M ____0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 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? Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the 303(d) list. Yes = 1 No = 0	1
S 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 unit is found. Yes = 2 No = 0	2
Total for S 3Add the points in the boxes above	3
	the Cust is a se

Rating of Value If score is: X 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding an	d stream eros	ion
S 4.0. Does the site have the potential to reduce flooding and stream erosion?		
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the point for the description that best fits conditions in the wetland. <i>Stems of plants should be thick enoug</i>		
in), or dense enough, to remain erect during surface flows.	8	0
Dense, uncut, rigid plants cover > 90% of the area of the wetland	points = 1	
All other conditions	points = 0	
Rating of Site Potential If score is: 1 = M X 0 = L Rec	ord the rating on	the first page

S 5.0. Does the landscape have the potential to support the hydrologic functions of the support the hydrologic functions of the support the hydrologic functions of the support the hydrologic functions of the support the hydrologic functions of the support the hydrologic functions of the support the hydrologic functions of the support the hydrologic functions of the support the hydrologic functions of the support the hydrologic functions of the support the hydrologic functions of the hydrologic functio	the site?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess		0
surface runoff?	Yes = 1 No = 0	U
Detine of Londonna Detential If some in A. M. Y. O. L	Descend the nutling on	the first serves

Rating of Landscape Potential If score is: 1 = M X 0 = L

Record the rating on the first page

S 6.0. Are the hydrologic functions provided by the site valuable to society?		
S 6.1. Distance to the nearest areas downstream that have flooding problems: The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream points = 0		
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0		
Total for S 6Add the points 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 page

NOTES and FIELD OBSERVATIONS:

	uestions apply to wetla		
HABITAT FUNCTIONS - Indicators	•	ovide important habitat	
H 1.0. Does the site have the potential	•		
Cowardin plant classes in the wetlar of ¼ ac or more than 10% of the unit Aquatic bed Emergent Scrub-shrub (areas where shru Forested (areas where trees ha If the unit has a Forested class,	nd. Up to 10 patches may be c if it is smaller than 2.5 ac. Ac bs have > 30% cover) ave > 30% cover) check if: 5 strata (canopy, sub-canopy	d strata within the Forested class. Check the combined for each class to meet the threshold dd the number of structures checked. 4 structures or more: points = 4 3 structures: points = 2 2 structures: points = 1 1 structure: points = 0 , shrubs, herbaceous, moss/ground-cover)	0
H 1.2. Hydroperiods			
more than 10% of the wetland or ¼ Permanently flooded or inundate Seasonally flooded or inundate Occasionally flooded or inundate X_Saturated only Permanently flowing stream or Seasonally flowing stream in, or Lake Fringe wetland Freshwater tidal wetland	ac to count (<i>see text for descr</i> ted d ted river in, or adjacent to, the w	4 or more types present: points = 3 3 types present: points = 2 2 types present: points = 1 1 type present: points = 0	0
H 1.3. Richness of plant species Count the number of plant species in Different patches of the same species the species. Do not include Eurasia If you counted: > 19 species 5 - 19 species < 5 species	s can be combined to meet th	ne size threshold and you do not have to name	1
H 1.4. Interspersion of habitats Decide from the diagrams below wh the classes and unvegetated areas (have four or more plant classes or th	can include open water or m	owardin plants classes (described in H 1.1), or udflats) is high, moderate, low, or none. <i>If you</i>	0

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i> 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 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered</i> <i>where wood is exposed</i>) At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>) Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of</i> <i>strata</i>)	
Total for H 1 Add the points in the boxes above	1
Rating of Site Potential If score is: 15-18 = H 7-14 = M X 0-6 = L Record the rating of	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat <u>11.4</u> + [(% moderate and low intensity land uses)21.3/2] <u>10.7</u> = <u>22.1%</u>	
If total accessible habitat is:points = 3> $^{1}/_{3}$ (33.3%) of 1 km Polygonpoints = 320-33% of 1 km Polygonpoints = 210-19% of 1 km Polygonpoints = 1	2
If total accessible habitat is:> 1/3 (33.3%) of 1 km Polygonpoints = 320-33% of 1 km Polygonpoints = 210-19% of 1 km Polygonpoints = 1< 10% of 1 km Polygon	2
If total accessible habitat is:points = 3 $> 1/3$ (33.3%) of 1 km Polygonpoints = 3 $20-33\%$ of 1 km Polygonpoints = 2 $10-19\%$ of 1 km Polygonpoints = 1 $< 10\%$ of 1 km Polygonpoints = 0H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.points = 0 $Calculate:$ % undisturbed habitat 15.7 + [(% moderate and low intensity land uses)54.4/2] 27.2 = 42.9 %Undisturbed habitat > 50% of Polygonpoints = 3Undisturbed habitat 10-50% and in 1-3 patchespoints = 2Undisturbed habitat 10-50% and > 3 patchespoints = 1	

I 3.0. Is the habitat provided by the site valuable to society?	
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 points = 1 Site does not meet any of the criteria above points = 0	0

Rating of Value	If score is:	<u>2 = H</u>	1 = M	Х	_0 = L
-					-

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: Old-growth west of Cascade crest 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 oldgrowth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).

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

___**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.
- <u>Snags and Logs</u>: 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 greater than 0.5 ppt Yes –Go to SC 1.1 No= Jot an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or 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 <i>Spartina</i>, see page 25) — At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mound grazeland. 	Cat. I
mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category II	Cat. II
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 Conservation Value? Yes – Go to SC 2.2 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category I No = Not a WHCV	Cat. I
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? <u>http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf</u> Yes – Contact WNHP/WDNR and go to SC 2.4 No =Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I No = Not a WHCV	
 SC 3.0. Bogs 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 empose 16 in or more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go 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 over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to SC 3.3 No = s not a bog 	
 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 plant species in Table 4 are present, the wetland is a bog. 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 	Cat. I

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate	
the wetland based on its functions.	
— Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered	
canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the	
species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).	
$\overline{\frown}$	Cot 1
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
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) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	Cutif
SC 5.1. Does the wetland meet all of the following three conditions?	
— 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
— 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.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
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.	
In practical terms that means the following geographic areas:	
 Long Beach Peninsula: Lands west of SR 103 	Catl
 Grayland-Westport: Lands west of SR 105 Occorr Shares, Consiling Lands west of SR 115, and SR 100 	Cat I
— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
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	Cat. II
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?	
Yes = Category II No – Go to SC 6.3	Cat. III
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?	
Yes = Category III No = Category IV	Cot IV
	Cat. IV
Category of wetland based on Special Characteristics	(N/A)
If you answered No for all types, enter "Not Applicable" on Summary Form	「ヘン

This page left blank intentionally

RATING SUMMARY – Western Washington

Name of wetland (or ID #):Wetland HDate of site visit: 3/9/2022Rated byAJ RendlemanTrained by Ecology? YesXNoDate of training11/2020HGM Class used for ratingSlopeWetland has multiple HGM classes?YXN

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

OVERALL WETLAND CATEGORY <u>IV</u> (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	Improving Water Quality		H	ydrol	drologic		Habitat				
	Circle the appropriate ratings										
Site Potential	Н	М	\Box	Н	Μ	C)	Н	Μ		
Landscape Potential	Н	\bigcirc	L	Н	Μ	C)	Н	M) L	
Value	(H)	М	L	Н	Μ	C)	Н	Μ	\bigcirc	TOTAL
Score Based on Ratings		6			3				4		13

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	Ι	
Bog	Ι	
Mature Forest	Ι	
Old Growth Forest	Ι	
Coastal Lagoon	I II	
Interdunal	I II III IV	
None of the above		

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

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which 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	H 2.1, H 2.2, H 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

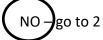
Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 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.

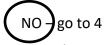


YES – The wetland class is Flats

YES – Freshwater Tidal Fringe

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.

NO – go to 5

YES – he 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.

NO – go 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 being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as 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.

S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft ve 100 ft of horizontal distance) Slope is 1% or less Slope is > 1%-2% Slope is > 2%-5% Slope is greater than 5%	ertical drop in elevation for every points = 3 points = 2 points = 1 points = 0	2
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use		0
 S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutar Choose the points appropriate for the description that best fits the plants in have trouble seeing the soil surface (>75% cover), and uncut means not graz than 6 in. Dense, uncut, herbaceous plants > 90% of the wetland area Dense, uncut, herbaceous plants > ½ of area 	the wetland. Dense means you	0
Dense, woody, plants > ½ of area Dense, uncut, herbaceous plants > ¼ of area Does not meet any of the criteria above for plants	points = 3 points = 2 points = 1 points = 0	
Total for S 1	Add the points in the boxes above	2

S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?		1
	Yes = 1 No = 0	T
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?		0
Other sources	Yes = 1 No = 0	0
Total for S 2	Add the points in the boxes above	1

Rating of Landscape Potential If score is: X 1-2 = M ____0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site value	able to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, 303(d) list?	river, lake, or marine water that is on the Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an iss on the 303(d) list.	sue? At least one aquatic resource in the basin is Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as import if there is a TMDL for the basin in which unit is found.	ant for maintaining water quality? Answer YES Yes = 2 No = 0	2
Total for S 3	Add the points in the boxes above	3
Pating of Value If score is: V 24 - H 1 - M 0 - I	Pacard the rating on t	ha first nag

Rating of Value If score is: X 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosi		
S 4.0. Does the site have the potential to reduce flooding and stream erosion?		
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. <i>Stems of plants should be thick enough (usually > 1/</i>		
in), or dense enough, to remain erect during surface flows. \degree	0	
Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1		
All other conditions points = 0		
Rating of Site Potential If score is: 1 = M X 0 = L Record the rating of the start of the star	n the first page	

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site	?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that gener surface runoff?	ate excess Yes = 1 No = 0	0
Rating of Landscape Potential If score is: 1 = M X 0 = L	Record the rating or	n the first page

S 6.0. Are the hydrologic functions provided by the site valuable to society?	
S 6.1. Distance to the nearest areas downstream that have flooding problems: The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) points = 2 Surface flooding problems are in a sub-basin farther down-gradient points = 1 No flooding problems anywhere downstream points = 0	0
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0
Total for S 6Add the points in the boxes above	

Rating of Value If score is: ___2-4 = H ___1 = M __X_0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

These questions apply to wetlands of a		
HABITAT FUNCTIONS - Indicators that site functions to provide im	nportant 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 w Cowardin plant classes in the wetland. Up to 10 patches may be combined of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the nu Aquatic bed Aquatic bed Scrub-shrub (areas where shrubs have > 30% cover) Forested (areas where trees have > 30% cover) Forested (areas where trees have > 30% cover) Forested (areas where trees have > 30% cover) I the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, that each cover 20% within the Forested polygon	d for each class to meet the threshold umber of structures checked. 4 structures or more: points = 4 3 structures: points = 2 2 structures: points = 1 1 structure: points = 0	0
H 1.2. Hydroperiods		
Check the types of water regimes (hydroperiods) present within the wetla more than 10% of the wetland or ¼ ac to count (<i>see text for descriptions o</i> Permanently flooded or inundated Occasionally flooded or inundated Saturated only Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland	_	0
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 the the species. Do not include Eurasian milfoil, reed canarygrass, purple loo If you counted: > 19 species 5 - 19 species < 5 species	reshold and you do not have to name	1
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin the classes and unvegetated areas (can include open water or mudflats) is have four or more plant classes or three classes and open water, the rating None = 0 points All three diagrams in this row are HIGH = 3points	plants classes (described in H 1.1), or s high, moderate, low, or none. <i>If you</i>	0

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 (db > 4 in) within the wetland (> 4 in diameter and 6 ft long). Standing snags (db > 4 in) within the wetland (> 1 m) down as the stands are present for at least 6.5 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 33 ft (10 m) 0 Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) 0 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) 1 Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) 1 Otal for H 1 Add the points in the boxes above 1 Rating of Site Potential If score is: 15-18 = H -7-14 = M X_0-6 = L Record the rating on the first page 21.3/2]10.7 = 22.1% If total accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% 2 10.9% of 1 km Polygon points = 3 2 2 2 2			
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 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered</i> <i>where wood is exposed</i>) At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>) Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of</i> <i>strata</i>) otal for H 1 Add the points in the boxes above 1 tating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L Record the rating on the first page 42.0. Does the landscape have the potential to support the habitat functions of the site? 42.1. Accessible habitat (include only habitat that directly abuts wetland unit). <i>Calculate:</i> % undisturbed habitat <u>11.4</u> + [(% moderate and low intensity land uses)21.3/2] <u>10.7</u> = <u>22.1%</u> If total accessible habitat is: > ¹ / ₁ (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon around the wetland. <i>Calculate:</i> % undisturbed habitat <u>15.7</u> + [(% moderate and low intensity land uses)54.4/2] <u>27.2</u> = <u>42.9</u> % Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and in 3 patches Undisturbed habitat 10-50% and in 3 patches Undisturbed habitat 10-50% and in 3 patches Undisturbed habitat 10-50% and in 3 patches Undisturbed habitat 10-50% and in 3 patches Undisturbed habitat 10-50% and in 3 patches Undisturbed habitat 10-50% and in 3 patches Undisturbed habitat 10-50% and in 3 patches Undisturbed habitat 10-50% and in 3 patches Undisturbed habitat 10-50% and in 3 patches Undisturbe	H 1.5. Special habitat features:		
		number of points.	
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 33 ft (10 m) 0 Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) QR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) 0 At least X 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) 1 Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) 1 otal for H 1 Add the points in the boxes above 1 tating of Site Potential If score is: 15-18 = H -7-14 = M X_0-6 = L Record the rating on the first page 12.0. Does the landscape have the potential to support the habitat functions of the site? 1 12.1. Accessible habitat (include only habitat that directly abuts wetland unit). 2 2 2 Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% 2 2 If total accessible habitat is: > ¹ / ₃ (33.3%) of 1 km Polygon points = 3 2 2 20-33% of 1 km Polygon points = 1 1.2.2. Undisturbed habitat 15.7 + [(% mode			
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) Image: Control of the material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) Image: Control of the material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) Image: Control of the material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) Image: Control of the material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) Image: Control of the material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) Image: Control of the material that might be used by beaver or muskrat for denning (> 30 degree slope) Image: Control of the moder activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) Image: Control of Cont			
where wood is exposed) At least % ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>)	Stable steep banks of fine material that might be used by beaver or muskrat for de	enning (> 30 degree	0
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) iotal for H 1 Add the points in the boxes above 1 Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L Record the rating on the first page 12.0. Does the landscape have the potential to support the habitat functions of the site? 1 12.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% 2 If total accessible habitat is: > ¹ / ₃ (33.3%) of 1 km Polygon points = 3 2 20-33% of 1 km Polygon points = 3 2 2 2 10.19% of 1 km Polygon points = 0 1 1 12.2. Undisturbed habitat 10.50% and in 1-3 patches points = 3 1 11.0 undisturbed habitat 10.50% and > 3 patches points = 1 1 12.3. Land use intensity in 1 km Polygon: 16 points = 0 1 2.3. Sol of 1 km Polygon is high intensity land use points = 0 1		e not yet weathered	
invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) iotal for H 1 Add the points in the boxes above 1 Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L Record the rating on the first page 4 2.0. Does the landscape have the potential to support the habitat functions of the site? 4 4 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% 1 If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 2 2.0-33% of 1 km Polygon points = 1 <10% of 1 km Polygon	At least ¼ ac of thin-stemmed persistent plants or woody branches are present in a	reas that are	
strata) Add the points in the boxes above 1 iotal for H 1 Add the points in the boxes above 1 Rating of Site Potential If score is:15-18 = H7-14 = MX0-6 = L Record the rating on the first page 12.0. Does the landscape have the potential to support the habitat functions of the site? 1 12.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat <u>11.4</u> + [(% moderate and low intensity land uses)21.3/2] <u>10.7</u> = <u>22.1%</u> 1 If total accessible habitat is: > ¹ / ₃ (33.3%) of 1 km Polygon points = 3 2 20-33% of 1 km Polygon points = 1			
otal for H 1 Add the points in the boxes above 1 Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L Record the rating on the first page 12.0. Does the landscape have the potential to support the habitat functions of the site? 1 12.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% 2 If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 2 20-33% of 1 km Polygon points = 1 points = 1 2 10-19% of 1 km Polygon points = 1 points = 0 1 1.2.2. Undisturbed habitat 10.50% and in 1-3 patches points = 2 points = 3 1 Undisturbed habitat 10-50% and in 1-3 patches points = 1 points = 0 1 1.2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon: If points = 0 1 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon: If points = 0 0	Invasive plants cover less than 25% of the wetland area in every stratum of plants	(see H 1.1 for list of	
Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L Record the rating on the first page 12.0. Does the landscape have the potential to support the habitat functions of the site? 12.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 1 points = 1 < 10% of 1 km Polygon points = 0 2 12.2. Undisturbed habitat 15.7 + [(% moderate and low intensity land uses)54.4/2] 27.2 =42.9% 1 Undisturbed habitat 10.50% and in 1-3 patches points = 3 1 Undisturbed habitat 10.50% and > 3 patches points = 1 1 Undisturbed habitat 10.50% and > 3 patches points = 0 1 12.3. Land use intensity in 1 km Polygon: If >50% of 1 km Polygon is high intensity land use points = (-2) 0 < 50% of 1 km Polygon is high intensity land use points = 0 0	strata)		
1 2.0. Does the landscape have the potential to support the habitat functions of the site? 1 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 points = 1 < 10% of 1 km Polygon points = 0 1 1 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 15.7 + [(% moderate and low intensity land uses)54.4/2] 27.2 = 42.9% 1 Undisturbed habitat 10-50% and in 1-3 patches points = 3 1 Undisturbed habitat 10-50% and in 1-3 patches points = 1 1 Undisturbed habitat < 10% of 1 km Polygon points = 1 1 Undisturbed habitat 10-50% and in 1-3 patches points = 2 1 Undisturbed habitat < 10% of 1 km Polygon points = 1 1 Undisturbed habitat < 10% of 1 km Polygon points = 0 1 1 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (-2) 0 < 50% of 1 km Polygon is high intensity points = 0 0 0	Total for H 1 Add the po	ints in the boxes above	1
1 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0 1 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 15.7 + [(% moderate and low intensity land uses)54.4/2] 27.2 =42.9% Undisturbed habitat 10-50% and in 1-3 patches points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 1 Undisturbed habitat < 10-50% and in 1-3 patches points = 2 Undisturbed habitat < 10.50% and > 3 patches points = 0 1 2.3. Land use intensity in 1 km Polygon: If >50% of 1 km Polygon is high intensity land use points = (-2) 0 < 50% of 1 km Polygon is high intensity points = 0 0	Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L	Record the rating on	the first pag
Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 2 20-33% of 1 km Polygon points = 2 points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon	H 2.0. Does the landscape have the potential to support the habitat functions of the	site?	
Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 2 20-33% of 1 km Polygon points = 2 points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon	H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 2 20-33% of 1 km Polygon points = 2 points = 2 10-19% of 1 km Polygon points = 1 points = 0 < 10% of 1 km Polygon		es)21.3/2]10.7 = 22.1%	
$273(333.3)/011$ km Polygonpoints = 31 $20-33\%$ of 1 km Polygonpoints = 2 $10-19\%$ of 1 km Polygonpoints = 1 $< 10\%$ of 1 km Polygonpoints = 0 $12.2.$ Undisturbed habitat in 1 km Polygon around the wetland.points = 0 $Calculate:$ % undisturbed habitat 15.7 + [(% moderate and low intensity land uses)54.4/2] 27.2 = 42.9%Undisturbed habitat > 50% of PolygonUndisturbed habitat > 50% of Polygonpoints = 31Undisturbed habitat 10-50% and in 1-3 patchespoints = 2Undisturbed habitat 10-50% and > 3 patchespoints = 1Undisturbed habitat < 10% of 1 km Polygon	If total accessible habitat is:	,	
20-33% of 1 km Polygonpoints = 210-19% of 1 km Polygonpoints = 1< 10% of 1 km Polygon	$> \frac{1}{3}$ (33.3%) of 1 km Polygon	points = 3	2
10-19% of 1 km Polygonpoints = 1 points = 0< 10% of 1 km Polygon			
< 10% of 1 km Polygonpoints = 01 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 15.7 + [(% moderate and low intensity land uses)54.4/2] 27.2 =42.9 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat < 10% of 1 km Polygon			
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 15.7 + [(% moderate and low intensity land uses)54.4/2] 27.2 = 42.9 % points = 3 Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon		·	
Calculate:% undisturbed habitat 15.7 + [(% moderate and low intensity land uses)54.4/2] 27.2 =42.9 % points = 3 Undisturbed habitat > 50% of Polygonpoints = 3 points = 2 points = 2 points = 1 undisturbed habitat 10-50% and > 3 patchespoints = 2 points = 1 points = 0111.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land usepoints = (-2) points = 00			
Undisturbed habitat 10-50% and in 1-3 patchespoints = 2Undisturbed habitat 10-50% and > 3 patchespoints = 1Undisturbed habitat < 10% of 1 km Polygon		es)54.4/2] 27.2 =42.9 %	
Undisturbed habitat 10-50% and in 1-3 patchespoints = 2Undisturbed habitat 10-50% and > 3 patchespoints = 1Undisturbed habitat < 10% of 1 km Polygon	Undisturbed habitat > 50% of Polygon	points = 3	4
Undisturbed habitat < 10% of 1 km Polygonpoints = 01 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land usepoints = (-2)\$ 50% of 1 km Polygon is high intensitypoints = 0	Undisturbed habitat 10-50% and in 1-3 patches	points = 2	T
1 2.3. Land use intensity in 1 km Polygon: Ifpoints = (-2)> 50% of 1 km Polygon is high intensity land usepoints = (-2) \leq 50% of 1 km Polygon is high intensitypoints = 0	Undisturbed habitat 10-50% and > 3 patches	points = 1	
> 50% of 1 km Polygon is high intensity land usepoints = (- 2)0≤ 50% of 1 km Polygon is high intensitypoints = 0	Undisturbed habitat < 10% of 1 km Polygon	points = 0	
> 50% of 1 km Polygon is high intensity land usepoints = (- 2)0≤ 50% of 1 km Polygon is high intensitypoints = 0	H 2.3. Land use intensity in 1 km Polygon: If	·	
≤ 50% of 1 km Polygon is high intensity points = 0		points = (- 2)	0
		ints in the boxes above	3

Rating of Landscape Potential If score is: ____4-6 = H ___X __1-3 = M ____<1 = L

Record the rating on the first page

H 3.0. Is the habitat provided by the site valuable to society?		
 H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose that applies to the wetland being rated. Site meets ANY of the following criteria: 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 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 Nate It has been categorized as an important habitat site in a local or regional compreher Shoreline Master Plan, or in a watershed plan Site does not meet any of the criteria above 	points = 2 e state or federal lists) ural Resources	0

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

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: Old-growth west of Cascade crest 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 oldgrowth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).

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

___**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.
- <u>Snags and Logs</u>: 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 greater than 0.5 ppt Yes –Go to SC 1.1 No= Jot an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area	
Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?	Cat. I
Yes = Category I No - Go to SC 1.2	
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	Cal. II
contiguous freshwater wetlands. Yes = Category I No = Category II	
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 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	cut. I
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	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
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 Go 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	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or	
pond? Yes – Go to SC 3.3 No = s not a bog	
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 bogNo - 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	
plant species in Table 4 are present, the wetland is a bog.	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	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate	
the wetland based on its functions.	
- Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered	
canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.	
 Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
$\overline{\frown}$	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
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)	Cat. I
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	Cat. I
SC 5.1. Does the wetland meet all of the following three conditions?	
— 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
— 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.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
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.	
In practical terms that means the following geographic areas:	
 Long Beach Peninsula: Lands west of SR 103 	Cat I
 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 	Cati
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
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	Cat. II
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?	
Yes = Category II No – Go to SC 6.3	Cat. III
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?	
Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	$\overline{N/A}$
If you answered No for all types, enter "Not Applicable" on Summary Form	

This page left blank intentionally

RATING SUMMARY – Western Washington

 Name of wetland (or ID #):
 Wetland I
 Date of site visit:
 03/09/2022

 Rated by
 AJ Rendleman
 Trained by Ecology?
 Y
 Date of training
 11/2020

 HGM Class used for rating
 Depressional
 Wetland has multiple HGM classes?
 Y
 X

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 []] (based on functions X or special characteristics)

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 – 27

Category II – Total score = 20 – 22

X Category III – Total score = 16 – 19

Category IV – Total score = 9 – 15

FUNCTION	Improving Water Quality		Hydrologic		drologic Habitat		at			
		_			Circle	the ap	prop	riate ra	tings	
Site Potential	Н	M	L	Н	M	L	Н	М	\bigcirc	
Landscape Potential	Н	M	L	Н	\bigcirc	L	Н	M	L	
Value	H	Μ	L	Н	М	\bigcirc	н	Μ	\bigcirc	TOTAL
Score Based on Ratings		7			5			4		16

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

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY	
Estuarine	1 11	
Wetland of High Conservation Value	I	
Bog	I	
Mature Forest	I	
Old Growth Forest	I	
Coastal Lagoon	I II	
Interdunal		
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	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	7
Map of the contributing basin	D 4.3, D 5.3	8
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	8
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	9
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	9

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which 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	H 2.1, H 2.2, H 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

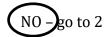
Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 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?

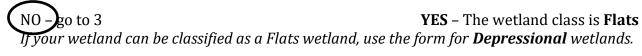


YES – the wetland class is **Tidal Fringe** – go to 1.1

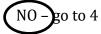
1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

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.



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 I

YES – The wetland class is **Riverine**

NO - go to 6 **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 / of area Wetland has persistent, ungrazed plants < ¹ / of area points = 0	5
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 points = 4 Area seasonally ponded is < ¼ total area of wetland	2
Total for D 1 Add the points in the boxes above	10
Rating of Site Potential If score is: <u>12-16 = H X 6-11 = M</u> <u>0-5 = L</u> Record the rating on the first p	age
D 2.0. Does the landscape have the potential to support the water quality 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? Yes = 1 No = 0	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 file	irst page
D 3.0. Is the water quality improvement provided by the site valuable to society?	
	0
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	0
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? Yes = 1 No = 0	

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradat	ion
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) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	4
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outletpoints = 7Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	0
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself. The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5	3
Total for D 4 Add the points in the boxes above	7
Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L Record the rating on the	e first page
D 5.0. Does the landscape have the potential to support hydrologic functions of the site?	
D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	0
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	0
Total for D 5Add the points in the boxes above	1
Rating of Landscape PotentialIf score is:3 = HX 1 or 2 = M0 = LRecord the rating on the	e first page
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>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met</u>. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. <i>Explain why</i> points = 0 There are no problems with flooding downstream of the wetland. 	0
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0
Total for D 6 Add the points in the boxes above	0
Rating of Value If score is: 2-4 = H 1 = M X 0 = L Record the rating on th	e first page

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015

IABITAT FUNCTIONS - Indicators that site function	o wetlands of all HGM classes.
1.0. Does the site have the potential to provide habit	
1.1. Structure of plant community: Indicators are Cowardin	
Cowardin plant classes in the wetland. Up to 10 patch	
of ¼ ac or more than 10% of the unit if it is smaller tha	
Aquatic bed	4 structures or more: points = 4
X Emergent	3 structures: points = 2
X_Scrub-shrub (areas where shrubs have > 30% cov	· · · · · · · · · · · · · · · · · · ·
Forested (areas where trees have > 30% cover)	1 structure: points = 0
If the unit has a Forested class, check if:	
The Forested class has 3 out of 5 strata (canopy,	p-canopy, shrubs, herbaceous, moss/ground-cover)
that each cover 20% within the Forested polygo	
1.2. Hydroperiods	
Check the types of water regimes (hydroperiods) pres	
more than 10% of the wetland or ¼ ac to count (see te	
Permanently flooded or inundated	4 or more types present: points = 3
<u>X</u> Seasonally flooded or inundated	3 types present: points = 2
Occasionally flooded or inundated	2 types present: points = 1 1
<u>X</u> Saturated only	1 type present: points = 0
Permanently flowing stream or river in, or adjace	
Seasonally flowing stream in, or adjacent to, the	
Lake Fringe wetland	2 points
Freshwater tidal wetland	2 points
1.3. Richness of plant species	
Count the number of plant species in the wetland that	over at least 10 ft^2 .
	p meet the size threshold and you do not have to name
the species. Do not include Eurasian milfoil, reed ca	
If you counted: > 19 species	points = 2
5 - 19 species	points = 1
< 5 species	points = 0
1.4. Interspersion of habitats	
Decide from the diagrams below whether interspersion	among Cowardin plants classes (described in H 1.1), or
	ter or mudflats) is high, moderate, low, or none. If you
have four or more plant classes or three classes and op	water, the rating is always high.
Name Originta	1
None = 0 points Low = 1 point	Moderate = 2 points
	5
Il three diagrams	
n this row	
re HIGH = 3points	

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of checks is the number of points</i> . 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 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered</i>	0
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 <i>(structures for egg-laying by amphibians)</i> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>)	
Total for H 1Add the points in the boxes above	4
Rating of Site Potential If score is: 15-18 = H 7-14 = M X 0-6 = L Record the rating or	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 11.4 + [(% moderate and low intensity land uses)21.3/2]10.7 = 22.1% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon 20-33% of 1 km Polygon points = 3 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	2
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 15.7 + [(% moderate and low intensity land uses)54.4/2] 27.2 =42.9 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon	1
> 50% of 1 km Polygon is high intensity land use points = (- 2)	0
≤ 50% of 1 km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	3

Rating of Landscape Potential If score is: ____4-6 = H ___X 1-3 = M ____<1 = L

Record the rating on the first page

3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highes that applies to the wetland being rated.	t score
	ints = 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 feder	al lists)
 It is mapped as a location for an individual WDFW priority species 	0
— 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 poi	nts = 1
Site does not meet any of the criteria above	ints = 0

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.
- **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.
- <u>Snags and Logs</u>: 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 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 or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?	Cat. I
Yes = Category I No - Go to SC 1.2 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 <i>Spartina</i> , 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. — The wetland has at least two of the following features: tidal channels, depressions with open water, or	Cat. II
contiguous freshwater wetlands. Yes = Category I No = Category II	
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	
Conservation Value? Yes – Go to SC 2.2 No – to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? 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 SC 2.4 Liss WDNP identified the wetland within the $S/T/P$ as a Wetland of Link Concentration V(r a elliptic dition	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
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 – Go 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	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on tex of a lake or	
pond? Yes – Go to SC 3.3 No = s not a bog	
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	Cot
plant species in Table 4 are present, the wetland is a bog.	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	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate	
the wetland based on its functions.	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of 	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.	
— Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the	
species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
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)	
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 (No =)Not a wetland in a coastal lagoon	
SC 5.1. Does the wetland meet all of the following three conditions?	
— 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
— 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.	
— The wetland is larger than ¹ / ₁₀ ac (4350 ft ²) Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
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.	
In practical terms that means the following geographic areas:	
 X Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 	Cat I
 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 	Cati
Yes – Go to SC 6.1 (No = not an interdunal wetland for rating	
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	Cat. II
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?	
Yes = Category II No – Go to SC 6.3	Cat. III
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?	
Yes = Category III No = Category IV	C-t-N/
	Cat. IV
Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	

This page left blank intentionally

RATING SUMMARY – Western Washington

Name of wetland (or ID #): <u>Wetland J</u>Date of site visit: <u>03/09/2022</u> Rated by <u>AJ Rendleman</u> Trained by Ecology? <u>Y</u>Date of training <u>11/2020</u> **HGM Class used for rating** <u>Depressional</u> Wetland has multiple HGM classes? <u>Y X</u>N

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 <u>IV</u> (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		mprov ater Q	-	Н	ydrol	ogic		Habit	at	
		_			Circle	the ap	prop	riate re	atings	
Site Potential	Н	M	L	Н	M	L	Н	Μ	\bigcirc	
Landscape Potential	Н	М	\bigcirc	Н	Μ	\bigcirc	Н	M	L	
Value	H	М	L	Н	Μ	\bigcirc	Н	Μ	\bigcirc	TOTAL
Score Based on Ratings		6			4			4		14

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	। ॥ _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	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	7
Map of the contributing basin	D 4.3, D 5.3	8
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	8
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	9
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	9

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which 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	H 2.1, H 2.2, H 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

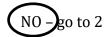
Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 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

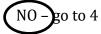
1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

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 I

YES – The wetland class is **Riverine**

NO - go to 6 **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.

	ality
1.0. Does the site have the potential to improve water quality?	
1.1. <u>Characteristics of surface water outflows from the wetland</u> : Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet points Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	5 = 3 5 = 2 = 1
1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No	o = 0 0
	:s = 5
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 points Area seasonally ponded is > ½ total area of wetland points Area seasonally ponded is > ½ total area of wetland points Area seasonally ponded is < ¼ total area of wetland	5 = 2
tal for D 1 Add the points in the boxes abo	ove 10
ting of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L Record the rating on the site? 2.0. Does the landscape have the potential to support the water quality function of the site?	he first page
2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No	= 0 0
2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No	= 0 0
2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No	= 0 0
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	
tal for D 2 Add the points in the boxes ab	ove 0
) on the first pa
iting of Landscape Potential If score is: <u>3 or 4 = H</u> <u>1 or 2 = M</u> <u>X</u> 0 = L <i>Record the rating</i>	
ting of Landscape Potential If score is: <u>3 or 4 = H</u> <u>1 or 2 = M</u> <u>X</u> 0 = L Record the rating	
Ating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M X 0 = L <i>Record the rating</i> 3.0. Is the water quality improvement provided by the site valuable to society?	
atting of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M X 0 = L Record the rating 3.0. Is the water quality improvement provided by the site valuable to society? 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on th 303(d) list?	0 = 0
atting of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M X 0 = L Record the rating 3.0. Is the water quality improvement provided by the site valuable to society? 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on th 303(d) list? 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? Yes = 1 No	= 0 0 = 0 1
atting of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M X 0 = L Record the rating 3.0. Is the water quality improvement provided by the site valuable to society? 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on th 303(d) list?	0 0 = 0 1 er YES 2

DEPRESSIONAL AND FLATS WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation		
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) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	4	
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 1 Marks of ponding less than 0.5 ft (6 in) 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 upstream basin 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 points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5 Total for D 4 Add the points in the boxes above	3	
Total for D 4 Add the points in the boxes above Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L Record the rating on the	-	
D 5.0. Does the landscape have the potential to support hydrologic functions of the site?	J	
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? Yes = 1 No = 0	0	
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	0	
Total for D 5Add the points in the boxes above	0	
Rating of Landscape Potential If score is:3 = H1 or 2 = MX 0 = L Record the rating on the	first page	
D 6.0. Are the hydrologic functions provided by the site valuable to society?		
 D 6.1. <u>The unit is in a landscape that has flooding problems</u>. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met</u>. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. <i>Explain why</i> points = 0 There are no problems with flooding downstream of the wetland	0	
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0	
Total for D 6 Add the points in the boxes above	0	

Rating of Value If score is: 2-4 = H 1 = M X 0 = L

HABITAT FUNCTIONS - Indic	ators that site functions to pro	vide important habitat	
H 1.0. Does the site have the po	tential to provide habitat?		
Cowardin plant classes in the of ¼ ac or more than 10% of Aquatic bed Emergent Scrub-shrub (areas whee Torested (areas where If the unit has a Forestee The Forested class has 3	wetland. Up to 10 patches may be c the unit if it is smaller than 2.5 ac. Ac re shrubs have > 30% cover) trees have > 30% cover) d class, check if:	d strata within the Forested class. Check the ombined for each class to meet the threshold Id the number of structures checked. 4 structures or more: points = 4 3 structures: points = 2 2 structures: points = 1 1 structure: points = 0 c, shrubs, herbaceous, moss/ground-cover)	0
H 1.2. Hydroperiods Check the types of water reg more than 10% of the wetlar Permanently flooded or X_Seasonally flooded or in Occasionally flooded or X_Saturated only Permanently flowing strea Seasonally flowing strea Lake Fringe wetland Freshwater tidal wetlar	imes (hydroperiods) present within t d or ¼ ac to count (<i>see text for descr</i> inundated inundated inundated eam or river in, or adjacent to, the w m in, or adjacent to, the wetland	4 or more types present: points = 3 3 types present: points = 2 2 types present: points = 1 1 type present: points = 0	1
Different patches of the same	Eurasian milfoil, reed canarygrass, p	e size threshold and you do not have to name	1
H 1.4. Interspersion of habitats Decide from the diagrams be the classes and unvegetated		owardin plants classes (described in H 1.1), or Idflats) is high, moderate, low, or none. If you	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.	
X 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 exte over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)		
Stable steep banks of fine material that might be used by beaver or muskrat for de	enning (> 30 degree	1
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have where wood is exposed)	e not yet weathered	
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in a permanently or seasonally inundated <i>(structures for egg-laying by amphibians)</i>	reas that are	
Invasive plants cover less than 25% of the wetland area in every stratum of plants strata)	(see H 1.1 for list of	
Total for H 1 Add the point	nts 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 s	ite?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
<i>Calculate:</i> % undisturbed habitat <u>11.4</u> + [(% moderate and low intensity land uses)21	3/2] <u>10.7</u> = 22.1%	
If total accessible habitat is:		
> ¹ /₃ (33.3%) of 1 km Polygon	points = 3	2
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 habitat <u>15.7</u> + [(% moderate and low intensity land uses)5	4.4/2] <u>27.2</u> = 42.9 %	
Undisturbed habitat > 50% of Polygon	points = 3	1
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	T

Rating of Landscape Potential If score is:4-6 = HX1-3 = M< 1 = L Record the rating on the		ige
Total for H 2	3	
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use ≤ 50% of 1 km Polygon is high intensity	0	
Undisturbed habitat < 10% of 1 km Polygon		
Undisturbed habitat 10-50% and > 3 patches		
·		

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 0 — 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 points = 1Site does not meet any of the criteria above points = 0

Rating of Value	If score is:	2 = H	<u>1 = M</u>	<u>X</u> 0=L

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.
- **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.
- <u>Snags and Logs</u>: 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 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 or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?	Cat
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	
contiguous freshwater wetlands. Yes = Category I No = Category II	
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	
Conservation Value? Yes – Go to SC 2.2 (No –) to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
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	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
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 $(No - fo)$ 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	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or	
pond? Yes – Go to SC 3.3 No = s not a bog	
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	
plant species in Table 4 are present, the wetland is a bog.	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	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate	
the wetland based on its functions.	
- Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered	
canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the	
species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).	
$Yes = Category I \qquad No = Not a forested wetland for this section$	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
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)	Cat. I
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 (No = Not a wetland in a coastal lagoon	Cat. I
SC 5.1. Does the wetland meet all of the following three conditions?	
— 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
— 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.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
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.	
In practical terms that means the following geographic areas:	
X Long Beach Peninsula: Lands west of SR 103	
 — Grayland-Westport: Lands west of SR 105 	Cat I
— Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
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	Cat. II
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?	
Yes = Category II No – Go to SC 6.3	Cat. III
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?	
Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	

This page left blank intentionally