

CRITICAL AREA DETERMINATION:

PREPARED FOR:

Montebanc Management 6230 Hollywood Blvd. Sarasota, FL 34231-3006

LALA PARCELS: 001091002, 0010912005 & 001092006

001091002, 0010912003 & 001092

MARKEY PARCELS: 973800201 & 973800301

SITE LOCATION:

Rainier Street North of Discover Road

FOR SUBMITTAL TO:

Port Townsend Department of Community Development

Documenting Critical Areas Subject to PTMC title 19 – Environmental Protection Section 19.05.110 Critical Area 5 – Wetlands

PREPARED BY:

W David Loggy Loggy Sol and Wetland Consulting P.O. Box 2347 Port Angeles, WA 98362

Cover photograph - Barred Owl

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WETLAND CRITICAL AREA DETERMINATIONS FOR LALA AND MARKLEY PARCELS

CONSULTING COMPANY: Loggy Soil and Wetland Consulting

P.O. Box 2347 Port Angeles, WA 98362

LANDOWNERS Jeremy Lala

1601 Rainier Street

Port Townsend, WA 986365-9304

Sharon Markley 6 Greensville Lane

Longview, WA 98632-5392

MAP LOCATION Appendix I

APPLICANT: Montebanc Management

6230 Hollywood Blvd. Sarasota, FL 34231-3006

PROJECT Critical Area determination of present or absent of wetlands

for a new single-family residence land Plat.

TAX PARCEL NUMBER(S): Lala Parcels - 001091002, 001092005 and 001092006

Markley Parcels - 973800201 & 973800301

SITE LOCATION All Parcels are found in Section 09, Township 30 North, Range 01West,

W.M., Jefferson County, Washington

Starting at the Discovery Lane and Rainier Drive traffic circle take Rainier Street north. The parcels lie on the side of Rainier Street starting 764 feet for

the traffic circle (Exhibit 1).

SIZE OF PARCEL Lala Parcels - 001091002 - 20.73 acres

001092005 - 6.27 acres 001092006 - 7.40 acres

Markley Parcels - 973800201 -5.62 acres

973800301 - 5.24 acres

INVESTIGATION PERIOD: April thru May 2021

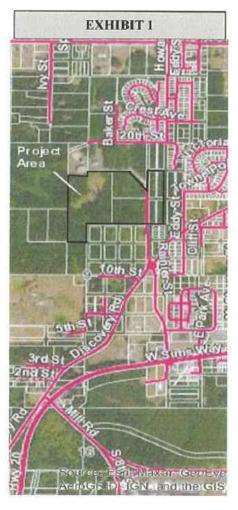
PRE-EXISTING INVENTORIES:

The United States Fish and Wildlife (USFW) Nation Wide Inventory (NWI) does not identify any wetlands on the parcel. The Washing State Department of Ecology does not identify any Natural Heritage Featured or High Conservation Value Wetlands.

At least three (3) private wetland firms have identified wetlands on one or more of the parcels. Two individual wetlands have been identified and delineated on Parcel 001091002 (Alkai Consultants, LLC., August 2008). Two wetlands on Parcel 001092006 (Loggy Soil and Wetland Consulting, April 2021). One wetland occurring on both parcels 973800201 and 973800301 (Alkai Consultants, LLC., August 2008, Loggy Soil and Wetland Consulting, and Westech Company, March 2008

METHOD AND APPROACH

Usually, a two-Level Assessment is used to identify, wetlands. The first level of assessment includes review of existing information conducted to develop background knowledge of physical features, and to identify the potential for wetland occurrence on the parcel. The resource documents available for preliminary review of the site conditions can included data for government agencies. Data from other agencies included USDA Soil Conservation Service (SCS), "Soil Survey of Jefferson County Area Washington", 2015, Jefferson County and Google aerial photography and any adjacent wetland reports on file with city or county governments.



The second level of assessment includes on-site investigation. On-site investigation includes establishing site plots on the wetlands. The plots describe the presence of wetland vegetation, soil and hydrology data describing it as a wetland. Field data and other pertinent area data is used to classify the wetland(s) as to category of importance with approved Washington State Rating System¹. The next part includes marking the boundary of the wetland area so that it can be surveyed to plot its location correctly on a map.

WETLAND AND NON-WETLAND HABITATS

NON-WETLAND SITE

Vegetation - One upland area was sampled. Sample Plot 1 describes the undisturbed forested sites on the parcel. The data sheet and be viewed in Appendix II. The forested site consists of an over story of red alder (Alnus rubra), big-leaf maple (Acer macrophyllum) Douglas fir (Pseudotsuga menziesii) and Western hemlock (Tsuga heterophylla). Shrubby understory at the sample point is dominated by salal (1Gaultheria shallon. Herbaceous understory vegetation includes mostly Agrostis species.

Department of Ecology State of Washington. Washington State Wetland Rating System, For Western Washington, 2014 Update: October 2014 – Effective January 22015 Publication no. 14-06-029.

Soils - The soils are moderately deep well drained soil with slow runoff and rapid infiltration. and consist of a 4-inch thick very dark grayish brown sandy loam surface on top of greater than 8 inches dark yellowish brown loamy sand.

Hydrology – At time of soils sampling the was greater than 12 inches so the site did not meet wetland hydrology.

The three wetlands (A1-A3) delineated by Loggy Soils and Wetland Consulting occurred on Parcel 001092006. On-site investigation determined and verified all three wetlands are shallow depressional wetlands. The wetlands contain all three indicators of wetland vegetation, soils, and hydrology to meet the requirement to be wetlands.² The hydric soil was classified using Filed Indicators of Hydric Soils in the United States, Version 8.1, 2017.

One sample site was taken to describe the vegetation, soil, and hydrologic features of Wetlands A1 and A3 while two plots were described in Wetland A2. One plot was done to describe the vegetation, soils, and hydrologic features on the non-wetland area on the project site. The wetlands and plot sites are presented in Appendix 1. The plot data is presented in Appendix II. The wetlands' classification rating data is presented in Appendix III.

WETLANDS

Wetlands A1-A3

Wetlands A1 -A3 are in shallow depressions. Wetland A1 and A2 are along the west boundary of the present location of Rainier Street. Wetland A3 is located on a gently slope to the north west of Wetlands A1 and A2 (Map Exhibit, Appendix I). Plot data can be viewed in Appendix II. Ratings for the wetlands are presented in Table I.

Vegetation — Wetland A2 and A3 supports herbaceous plant cover of creeping buttercup and grass plant. The two edges of wetlands are well defined by thick under growth of sala! (Gaultheria shallon) and common snow (Symphoricarpos albus) and sword fern (Polystichum munitum). Wetland A2 has intrusions of Nootka Rose (Rosa nutkana). Upland trees around the wetlands include red alder (Alnus Rubra), Western hemlock (Tsuga heterophylla), Douglas fir (psesudotsuga menziesii). Bigleaf maple (Acer macrophyllum) and Pacific Madrone (Arbutus Madrone). C

Soils - The soils at sample Plots 1, 2 and 3 have dark colors greater than 10 inches with common redoximorphic soil features starting at depths greater than 14 inches. The soils are loamy sand or sand loams throughout the soil's depth. The soils overlay glacial till. The soil on Plot 4, wetland 3, is shallow over glacial till with redoximorphic features starting before 10 inches in depth and are less than 16 inches to glacial till. The soil texture on plot 4 are same as the other 3 plots but are gravellier.

Hydrology – Parts of the wetland becomes seasonally inundated in the winter and spring but dry out during the summer. Portions of the wetland areas not seasonally inundated are seasonally saturated. All three wetland had saturated or inundated.

² Corps of Engineers Welland Delineation Manual: Western Mountains, Valleys and Coast Region (Version 2.0), May 2010.

Wetland C3

In June 2007, C3 Habitat Corporation delineated and classified wetlands on the project area³. Three wetlands were identified with 2 of the wetlands not being large enough to be regulated. The largest wetland was identified and surveyed. The wetland is in the southwest corner of the of project area and is shown on the conceptional site plan (Exhibit II). The wetland in the report is titled Wetland C3. The review of the site indicates the wetland is still present and the wetland criteria are still present.

Vegetation – Dominate vegetation a dense tree cover consisting of Scoular's willow (Salix scouleriana) and dominant shrub cover of Douglas spiraea (Spiraea douglasii). The dominant herbaceous understory consists of soft rush (Juncus effusus). Plot data can be viewed in footnoted report. The vegetative cover meets the criteria for wetland vegetation.

Soils – The soil consisted of 4 inches of 4 inches of very dark grayish brown sandy loam over 8 inches of depleted (grayish brown) dense sandy clay loam. The soils meet the hydric (wetland) soil A11-Depleted Below Dark Surface criteria.

Hydrology – The present of wetland hydrology was made Drainage patterns, positive FAC-neutral ratio, and seasonal hydrology.

Wetland D — Wetland D cover two (2) parcels consisting of four (4) lots that are between the east side right-of-way (ROW) of Rainier Street and utilities ROW that also serves as a walking trail. The wetland continues onto parcel to the north. The wetland is probably the most delineated and wetland in all of Port Townsend. A least four wetland delineating companies have classified and delineated this wetland.

The wetland has been rated as both a Category II or III depending on the wetland specialist and company. Three of the ratings were done Washington State's 2014 Rating System. The most resent rating done by Westech Company rated the wetland as a Category III Wetland using the Washington State revised 2014 rating system. I rated the wetland myself using the revised 2014 rating system and concur with Westech that the wetland is a Category III wetland.

WETLAND RATING

Wetlands A1-A3 were rated using the updated 2014 Washington Wetland Rating System. Wetland C3 was rated using the existing field data and supplemented with the up dated rating system. An addendum wetland rating was done using the updated 2014 Washington State Wetland Rating System to ensure the wetland C3 is still a Category. The addendum was done due to inconsistencies found in the 2004 rating of the wetland. Only those figures needed to update new information are presented in the addendum. The classification rating sheets for Wetlands A1-A3 and well as the addendum for Wetland C3 can be reviewed in Appendix III.

⁵ C3 Habitat Corporation, NE 3530 Old Belfair Hwy #56, Belfair, Washington 98528

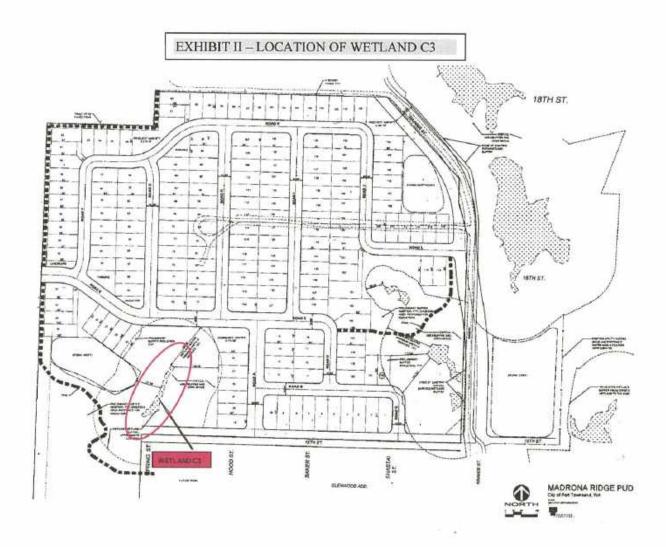


Table 1

Compiled Wetland Rating Information on Parcel 001091006

	cres	Off Y/N)	WETLAN	D RATI		CTION	eore	i.	Ç.	idth
Wetland Name	Total Wetland Acres	Wetland Extends Off the Project Site? (Y/N)	FUNCTION	WATER QUALITY	HYDROLOGIC	HABITAT	Total Functions Score	MGM Class, etc.	Wetland Category	Wetland Buffer Width
A1-A2		No	Site Potential	н	М	М				
			Landscape Potential	М	M	Н				
			Value	L		М				
				6	5	7	18	1*	ш	150'
A2		No	Site Potential	М	М	М				
			Landscape Potential	L	L	н				
			Value	L	L	М				
				4	4	7	15	1*	IV	50'
C3		No	Site Potential	М	М	М				
			Landscape Potential	M	L	н				
		1	Value	L	L	M				
,				5	4	7	16	1*	III	150'
D	2.5	Yes	Site Potential	М	М					
			Landscape Potential	M	М					
			Value	L	M					
				5	6	7	18	1*	Ш	150'

HGM Wetland Classes

^{1.} Depression, 2. Slope, 3 Fat, 4. Riverine, 5 Salt Water Tidal Fringe, 6. Coastal Lagoon, 7. Forest, 8. Estuarine,

^{9.} Bogs, 10. Interdual Coastal and 11. High Conservation Value

WETLAND BUFFERS

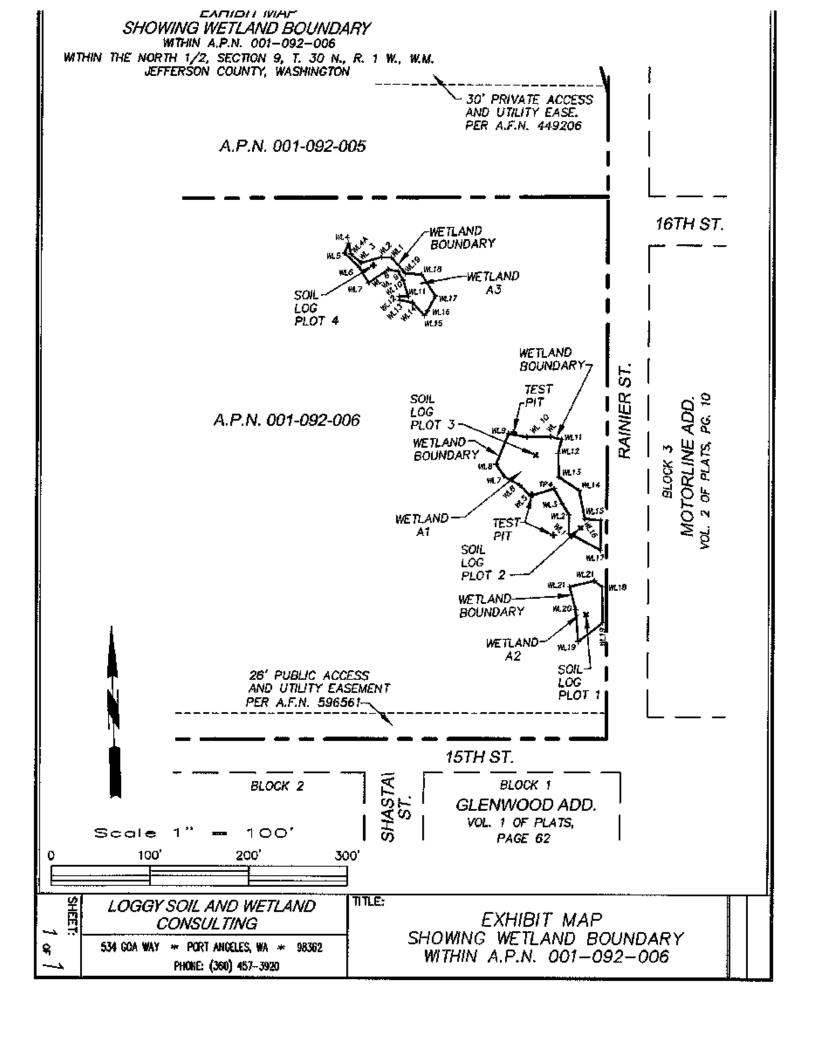
Protection buffers will be established for each wetland as per directed in PTMC 19.05.110 (G) (2) (a). Buffer width for each of the wetlands are listed in Table 1.

Wetland D's buffer extends over the utility's corridor and trail, and onto other developable lots and Rainier Street. Under PTMC 19.05.110 (G) (7) buffers may be waived by the director for some circumstances. The buffer extending over the utility's corridor and trail, and onto other developable lots meet circumstances allowing a waiver.

The wetland buffer on the lots meets the requirement in 19.05.110 (G) (7) (b). That is the parcel lies landward of an existing legally established roadway (Rainier Street) and the utility corridor and trail. Although the train is not paved it is a heavily use trail by people of Port Townsend. With the development of Madrona Ridge Development, the existing trails and undeveloped trail along the utility corridor effectively eliminates the function and value derived from the required buffer width.

APPENDIX I

MAP OF LOACTION OF WETLANDS A1-A3



APPENDIX II

FIELD DATA FORMS

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys and Coast Regions 48,119

Project/Site: 001092006 Madrona Ridge Plot 5)	Non-Wetland			County: Port To	ownsends	Sampling	g Date Marci	h 23,	2021
Applicant/Owner: Jereany Elgin Lala			State:				g Point: Plot	5 N	on-Wetland
Investigator(s): W. David Loggy, Loggy Soil & V Landform (hillslope) Terrace	Wettand Consul				nip 30N, Range: e, convex, none):			1	(%) 10
Subregion (LRR): A	Lat	t: 48.1109	9 N	Teller (concav	Long: -122.81	COHVEX	Datum		(76) 10
Soil Map Unit Name: Clallam gravelly sandy to	am (see any o	orrection	in Soi		NW1		ation: None	·····	
Are climatic / hydrologic conditions on the site ty			ar? Y					_	
Are vegetation , Soil , or Hydrology s Are vegetation , Soil , or Hydrology 1					ormal Circumstar ed, explaîn any a			<u> </u>	No 🗌
							(Kemarks)	_	
SUMMARY OF FINDINGS - Attach site map sho		g point l				res, etc			
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No ⊠ No ⊠			he Sampled År thin a Wetland		Yes [1	No	5 1
Wetland Hydrology Present? Yes	No ⊠		,,,,,	IIIII & TT CLIEURG	•	102 L	-1	NO	
Remarks:									
Soil has been disturbed in past that appears to VEGETATION – Use scientific names of plant									
VEGETATION - Use scientific names of plant	Absolute	Domi	nant	Indicator	Dominance '	Fact wo	rkehoot:	_	
Trees Stratum (Plot size:30' radius)	% Cover	Speci		Status	Number of D			et	
Pseudotsuga menziesii	40	Yes		FACU	Are OBL, FA				(A) 4
2.Alnus rubra	30	Yes		FAC	Total; Number	er of don	ninant		
3.Arbutus menziesii	10	Yes		FACU	Species Acro				(B) 6
4.					Percent of Do				, ,,
5.					That Are OB	L, FCW,	or FAC:		(A/B) 66
	80%=	Total C	over		Prevalence I	ndex wo	rksheet:		
Sapling/Shrub Stratum (Plot size: 10'					Total % Cove		Multiply by	<u>':</u>	
Radius)	1								
1 Gaultheria shallon	40	Yes		FACU	OBL species			Хl	=
2, Rosa nutkana	10	Yes		FAC	FACW specie	xs		X 2	= .
3.Salix scouleriana	10	No		FAC	FAC species			X 3	=
4.					FACU specie	s		X 4	-
5.		·			UPL Species		•	X 5	=
6.					Column totals	5	(A)		(B)
7.					Prevalence in	dex = B	/A =		
	60% =	Total C	over		Hydrophytic \	egetatio	n Indicator	S:	
					│ │	et for Un	deanhutic V		i
Herb Stratum (Plot size: 1.64* Radius) 1. Agrostis species	10	Yes		FAC	1 - '	•	• •	Servi	11011
2.	10	1 ¢2		TAC	2.Dominan	e Test is	>50%		
3,					🔲 3. Prevalen	ce Index i	is ≤3.0¹		
4.						!1 4 4			
5.		<u></u>			4. Morpholi supportir		iaptations: (r Remarks or		
6.					sheet)	-			
7.					5. Wetland	Non-Vac	cular Plantel		
···	1000/ -	Terel C			l Bar ivaniana	11011-140	opidi 1 idilis		
Woody Vine Stratum (Plot size: 10'	100% =	Total C	over		Problematic	: Hydropl	hytic Vegetal	lion ¹	
Radius)					(Explain)				
1.					¹ Indicators of h	ydric soi.	l and wetland	d hyd	rology must
2.			$\neg \neg$		be present,				
		Total C	over		Hydrophytic				
% Bare Ground in Herb Stratum					Vegetation Present?	Yes [∑	<u> </u>	No []
Remarks:						2	<u> </u>		

SOIL										Sam	pling Point: Plot 5 Non-Wetland
	iption: (Describe)	to the d	epth needed :	to doci	ıment i	he indicate	ors or confi	irm the ab	sence	of indies	ators)
Depth (inches)	Metrix	0,	Redox Fea		0/		- 1	Texture		Damadu	
	Color (moist)	%	Color (mo	ISI)	%	Type ^I	Loc2		.5 .	Remarks	
0-4	10YR 3/2	100				<u> </u>		LS			· · · ·
4-12	10YR 4/5	100					<u> </u>	LS	- :		
						<u> </u>					
						<u> </u>					
Type: C=Co	meentrations, D=De	pletion.	RM=Reduces	Matri	x. CXS	"Covered o	or Coated Sa	and Grains	. ² Lo	cation:	PI=Pore lining, RC=Root Channel, M=Matrix
Hydric Soil	Indicators: (App	licable	to all LRR	s, unic	ess oth	erwise no	ted.)				Indicators for Problematic Hydric Soils ³ :
Histosol (Redox (SS)					2 cm Muck (A10)
☐ Histic Ep	ipedon (A2)					l Matrix (S Mucky Mi		(avaant)	MIT ID	4.1)	Red Parent Material (TF2) Other (Explain in Remarks 3
☐ Hydroger	Sulfide (A4)					Gleyed Ma		(except i	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,,	S Cone (Explain in Remarks
	low Dark Surface	(A11)				d Matrix (³ Indicators of hydrophytic vegetation and
	Surface (A12) ucky Mineral (S1	`				Dark Surfa d Dark Su					wetland hydrology must be present, unless
Sandy Gle	yed Matrix (\$4)	·				Depression					disturbed or problematic,
Restrictive I Type:	layer (if present):								11	
Depth (in	ches):									rtygri	ic Soil Present? Yes 🗌 No 🔯
Remarks: T	he soils are more	grave	ly loamy sai	ıd. A	re dec	per than (Ciallam ar	ad bave b	righ	ter valu	e aud chroma colors.
HYDROLO											
	drology Indicate cators (minimum		recuired: ch	ok all	that a	onlu)					Secondary Indicators (2 or more required)
e imary man	cators (minimidia	OI OIIC	regulied, cir	CAR BIL	ныса	Phix 7					Secondary Indicators (2 or more regulred)
	Vater (A1)			□ \		Stained Le					Water Stained Leaves (B9) (MRLA 1, 2,
⊠ High Wat	ter Table (A2)					RA 1, 2, 4, ust (B 11)	4, and 4B	6)			4A and 4B) Drainage Patterns (B10)
☐ Water Ma						: Invertebr	ates (Bi3))			Dry-Season Water Table (C2)
	Deposits (B2)			🔲 F	lydrog	en Sulfide	: Odor (C1	i)	_		Saturation Visible on Aerial Imagery
	osits (B3) t or Crust (B4)					ed Rhizosp se of Redu			Root	s (C3)	(C9) ☑ Geomorphic Position (D2)
☐ Iron Depo						Iron Redu			(C6)		Shallow Aquitard (D3)
	oil Cracks (B6)		(D.E.)		tunted	or Stresse	ed Plants (☐ FAC=Neutral Test (D5)
	n Visible on Aeri Vegetated concav			Ц)ther (Explain in	remarks)				Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
op		* • • • • • • • • • • • • • • • • • • •	•• (50)								- 1 rost-neave Hommeeks (177)
Field Observ	ations										
Surface Wate	or Present?	Ve	s 🔲 N	• 🖂	Da	pth (inche	.e)+				
							•				
Water Table				⋄⊠		pth (inche					
Saturation Pr (includes cap	illary fringe)			• 🛛		epth (inche					rology Present? Yes 🔲 No 🛛
Describe Rec	orded Data (strea	m gaug	e, monitorin	g well	, aeria	i photos, p	revious in	spections), if a	vailable	
Remarks: The	ere were areas of	shallow	/ inundation	withir	the w	etland are	a on April	8.			

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys and Coast Regions 48.119

Project/Site: 001092006 Madrona Ridge Plet, W	/etlandiAl			County: Port To	ownsends		Date MAR		
Applicant/Owner: Jeremy Elgin Lala Investigator(s): W. David Loggy, Loggy Soil &	Wetland Concul	lting	State:		ip 30N, Range:		Point: Plot	1 Wel	lland A I
Landform (hillslope) - depression	T CHAIG COISC	ting .			e, convex, none)		Lsi	lope (9	۱۱.
Subregion (LRR): A		: 48° 06	' 08" N	Ī	Long: -122° 4		Datum		<u> </u>
Soil Map Unit Name: Clallam gravelly sandy los							tion: None		
Are climatic / hydrologic conditions on the site to Are vegetation . Soil , or Hydrology .	ypical for this ti	me of ye	ear? Y					NA. 31	,
Are vegetation , Soil , or Hydrology 1	significantly dis	matic?			ormal Circumstar ed, explain any a		nt <u>?</u> Yes Remarks)	×Ν	<u> </u>
							Kelling Kay		
SUMMARY OF FINDINGS - Attach site map sh		g point				res, etc			
Hydrophytic Vegetation Present? Yes ⊠ Hydric Soil Present? Yes ⊠	No 🔲			he Sampled Ar thin a Wetland		Yes 🔀		No [7
Wetland Hydrology Present? Yes ⊠	No 📙		W1	anta a setano	ť	ies 🔼		140 L	}
Remarks:									
Soil has been disturbed in past that appears to									
VEGETATION - Use scientific names of plant		<u> </u>			I		_		
Trees Stratum (Plot size:30' radius)	Absolute	Dom		Indicator	Dominance				
1 Ainus rubra	% Cover	Spec Yes	ijes :	Status FAC	Number of D Are OBL, FA			at [(A) 5
2. Salix scouleriana	15				<u> </u>				(A) 3
3.	13	Yes		FAC	Total; Numb Species Acro				(b) (
4.	<u> </u>				Percent of Do				(B) 6
5.					That Are OB				(A/B) 84
J	<u> </u>								
	55%=	Total (Cover		Prevalence I				
Sapling/Shrub Stratum (Plot size: 10' Radius)					Total % Cove	eron: M	<u>fultiply by</u>		
1. Rosa nutkana	40	Yes		FAC	OBL species		ſ	X 1 =	
2. Rubus procerus	20	Yes	••	FACU	FACW specie	es		X 2 =	±
3. Rubus spectabilis	20	No		FAC	FAC species	<u> </u>		X 3 =	
4. Symphoricarpos albus	10	No		FACU	FACU specie	_		X 4 =	
5.				17700	UPL Species			X 5 =	
6.							<u> </u>	<u> </u>	
		ļ			Column total		(A)		(B)
7.	<u> </u>				Prevalence in				
	90% =	Total C	Cover		Hydrophytic '	Vegetation	Indicators	:	
Herb Stratum (Plot size: 1.64' Radius)					1. Rapid Te	st for Hyd	rophytic Ve	getatio	on
1. Juncus effusus	10	Yes		FACW	57 0 5	G			
2.Ranunclus repens	10	Yes		FACW	2.Dominan	ce Test is >	>50%		i
3,		144		K 7 LO 17	3. Prevalen	ce Index is	≤3.01		
4.	<u> </u>				.				
					4. Morphol		ptations' (P) Remarks or (
5.					sheet)	ig data iii r	CONTRACTOR OF C	311 St 9.0	parato
6.									
7.		<u> </u>			5. Wetland	Non-Vasci	ular Plants		
	100% =	Total C	Cover		☐ Problematic	: Hydroohy	vtic Vegetati	ionI	
Woody Vine Stratum (Plot size: 10' Radius)					(Explain)		,	.012	
1.					Indicators of I	ydric soil :	and wetland	hydro	ology must
2.				i "	be present.				
	=	Total C	Cover		Hydrophytic				
% Bare Ground in Herb Stratum					Vegetation Present?	Yes 🏻	. N	lo 🗀	
Remarks:									

SOIL Sampling Point: Plot 1, Wetland A1 Profile Description: (Describe to the depth needed to document the indicators or confirm the absence of indicators)												
Profile Descr	iption: (Describe	t o the d	epth needed	to docu	iment (the indicate	ers or conf	Arm the at	sence	of indic	ators)	
Depth	Matrix		Redox Fea									
(inches)	Color (moist)	%	Color (mo	ist)	%	Type	Loc2	Texture	\$	Remark	S	
0-8	10YR 3/2	100						LS				
8-16	10YR 4/1	100	10YR 4/5	,	20	C	M	LS				
16-20	10YR 4/2		10YR 4/5	3	20	C	M	LS				
								 				
			i	- [+	+			
· · · · · · · · · · · · · · · · · · ·						 			\dashv			
· · · · · · · · · · · · · · · · · · ·	·	 	<u> </u>					 				
		 						 				
	••••	-	<u>-</u> .			 -	<u> </u>	!	+			
Type: C=Co	ncontrations D=D	entetion.	PM=Padwa	d & Kateri	v 770	Coursed a	i. Cantad S	Ford Conin	. 2T		: Pl=Pore lining, RC=Root Channel, M=Matrix	
								Sand Grains	;, <u>-,</u> L(DCATION:		
Hydric Soil	Indicators: (App	blicable	to all LKK								Indicators for Problematic Hydric Soils 3. 2 cm Muck (A10)	
Histic Ep						kedox (SS) i Matrix (S					Red Parent Material (TF2)	
📙 Black His	stic (A3)			\Box L	oamy :	Mucky Mi	neral (Ft		MLR	(A 1)	Other (Explain in Remarks 3	
	ı Sulfide (A4) Below Dark Sur:	C (A)				Gleyed Ma		+			³ Indicators of hydrophytic vegetation and	
	rk Surface (A12)		'''			d Matrix (. Dark Surfa					wetland hydrology must be present, unless disturbed or problematic.	
Sandy M	ucky Mineral (St				eplete	d Dark Su	rface (F7))			distribed of problematic.	
	eyed Matrix (S4) Layer (if present			∐R	edox I	Depression	s (F8)			_	<u> </u>	
Type:	cayer (n presem	<i>)</i> ;								Hvdr	ic Soil Present? Yes 🗵 No 🗌	
Depth (in										11,41		
Remarks: So	ils are more gra	veily lo	amy sand ti	an gr	avelly	sandy los	ms.					
HYDROL			•••									
Wetland Hy	drology Indicate	ors										
Primary Indi	cators (minimum	ofene	required; ch	eck all	that a	ppiy <u>).</u>					Secondary Indicators (2 or more required)	
☐ Surface V	Vater (A I)			l□v	Water-:	Stained Le	aves (B9)) (except			Water Stained Leaves (B9) (MRLA 1, 2,	
⊠ Hìgh Wat	ter Table (A2)			1	MLI	RA 1, 2, 4,					4A and 4B)	
Saturation Water Ma						ust (B11)	estan (D.13				Drainage Patterns (B10)	
	Deposits (B2)					: Invertebr en Sulfide					☐ Dry-Season Water Table (C2) ☐ Saturation Visible on Aerial Imagery	
Drift Dep	osits (B3)				xidize	ed Rhizosp	heres alo	ng Living	Root	ts (C3)	(C9)	
	t or Crust (B4)					e of Redu					☐ Geomorphic Position (D2)	
☐ Iron Depo	oil Cracks (B6)					Iron Redu For Stresse					☐ Shallow Aquitard (D3) ☐ FAC=Neutral Test (D5)	
🔲 Inundatio	n Visible on Aeri					Explain in			,		Raised Ant Mounds (D6) (LRR A)	
Sparsely	Vegetated concav	e Surfa	ce (B8)								Frost-Heave Hummocks (D7)	
Field Observ	ations											
Surface Water	er Present?	Ye	s 🖾 N	o 🗆	De	pth (inche	s):					
Water Table	Present?	Ye	s⊠ N	۰ 	De	epth (inche	s): 0" sur	face.				
Saturation Pr (includes cap	illary fringe)			• 📮		epth (inche	-	<u>i</u>		•	rology Present? Yes 🛛 No 🛄	
Describe Rec	orded Data (strea	un gaug	c, moniterin	g well	l, aeria	l photos, p	revious i	nspections), if 2	available	e:	
Remarks:												

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys and Coast Regions 48.119

[n + ./0: 00400040616]					····				
Project/Site: 001092006 Madrona Ridge Plot 4	Wetland A3			ounty: Port To	ownsends		Date April		
Applicant/Owner: Jeremy Elgin Lala	or and a second design of the second		State:				Point: Plo	t 4 W	etland A3
Investigator(s): W. David Loggy, Loggy Soil & Landform (hillslope) Terrace	wetland Consul				ip 30N, Range:1 e, convex, none)		. 1.	lose	(%) 4
Subregion (LRR): A	Lat	t: 48.119 N		CHEL (COHCAY)	Long: -122.80		Datun		(70) 4
Soil Map Unit Name: Ciallam gravelly sandy lo	am (see any c	orrection i	in Soil		NW.	l classifica	tion: None		
Are climatic / hydrologic conditions on the site t	vpical for this ti	me of year	ır? Ye						
Are vegetation , Soil , or Hydrology :					ormal Circumstar			X	No 🛄
Are regulation [], Soil [], or hydrology [] i	iaturally proble	amaxic?		(traced	ed, explain any a	inswers in	Kemarks)		· · ·
SUMMARY OF FINDINGS - Attach site map sh		g point lo				res, etc			
Hydrophytic Vegetation Present? Yes 🔀	No 🗆			e Sampled Ar			•		
Hydric Soil Present? Yes ⊠ Wetland Hydrology Present? Yes ⊠	No □ No □		With	iin a Wetland	?	Yes 🗵	l	No	Ш
Remarks:	т								
Soil has been disturbed in past that appears to									
VEGETATION - Use scientific names of plan	~								
Toron Streeting (District 20) - Pro)	Absolute	Domin		Indicator	Dominance '				
Trees Stratum (Plot size:30' radius) 1. Alnus rubra	<u>% Cover</u> 30	Specie Yes		Status FAC	Number of D Are OBL, FA			nat	(4) 2
	<u> </u>								(A) 3
2.Pseudotsuga menziesii 3.	20	Yes		FACU	Total; Numb Species Acre			}	(B) 6
4,		 			Percent of De				(B) 5
5.		<u> </u>	 -		That Are OB				(A/B) 60
<u> </u>	1111	<u> </u>							(1013) 00
	20%=	Total Co	over		Prevalence I				
Sapling/Shrub Stratum (Plot size: 10' Radius)	:	:			Total % Cov	<u> 101; N</u>	<u>Aultiply by</u>	<u>":</u>	
1. Symphoricarpos albus	10	Yes		FACU	OBL species			X 1	
2.	Ì				FACW speci	es	•	X 2	=
3.					FAC species			Х3	=
4.			\dashv		FACU specie	:s		X 4	
5.			-+		UPL Species	\longrightarrow		X 5	
6.		 -			Column total		(A)		(B)
7.				.	Prevalence in		<u> </u>		(15)
	100/	<u> </u> 			<u> </u>				<u></u>
	10% =	=Total Co	over		Hydrophytic '	vegetatio	n Indicator	3:	
Herb Stratum (Plot size: 1.64' Radius)					📋 I. Rapid Te	st for Hyd	irophytic V	egetat	tion
1 Poaceae mostly Agrostis species	80	Yes		FAC	57ap .				
2. Ranunculus repens	20	Yes		FACW	🛛 2.Dominan	ce lest is	>50%		
3.		100	-+		3. Provaton	ce Index is	s ≤3.0¹		
4,		<u></u>			٠ ا		. a. Lor		
5.					4. Morphol		aptauons' (1 Remarks or		
			$-\!\!\!\!+$		sheet)	ig casta til	CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	OIL G	зерагаю
6.									
7.				· · · · · · · · · · · · · · · · · · ·	5. Wetland	Non-Vaso	xılar Plantş'		:
	100% =	Total Co	ver		☐ Problematic	: Hydroph	ytic Vegeta	tion ¹	
Woody Vine Stratum (Plot size: 10' Radius)					(Explain)		_		
1.		<u> </u>	$\neg \uparrow$		¹ Indicators of i	ıydric soil	and wetland	d hyd	rology must
2.					be present.			-	
W	<u></u> =	Total Co	ver		Hydrophytic				
% Bare Ground in Herb Stratum					Vegetation Present?	Yes 🏻	ļ i	No 🗔	
Remarks:							·	· • lau	·

SOIL	Indiana (Dana III.)	4 4 4 4 4 4	- i							- E4 - ST	Sampling Point: Plot 4 Wetland A3
	iption: (Describe	t o the a			nmêvt (The Indicati	ors or con	lirm (ke ab	sence	of indic	ators)
Depth (inches)	Matrix Color (moist)	%	Redox Fea		%	Type ^l	Loc ²	Texture	es I	Remark	5
0-4	10YR 3/3	100	20101 (1110	131,		Туре	Loc	LS			
4-11	10YR 3/3	80	7.5YR 4/	4	20	C	М	LŞ			
11-12	10YR 2/1	100	725 8 88 37	-	20	-	141	LS	+	Chara	nal Layer
12-16	10YR 5/2	100	<u> </u>			<u> </u>	<u> </u>	LFS		Свиго	oai Layer
12-10	2012012	100	· · · · · · · · · · · · · · · · · · ·			<u></u>	<u> </u>	LFG	+		
			<u> </u> 			 	<u> </u>		+		***
-	•		· · · · · ·			-	 		+		
				-							
								<u> </u>	\dashv		
Type: C=Co	moentrations, D=D	enletion.	 RM≒Reduces	d Matri	x CXS	 ≔Covered (nc Conted 5	Sand Grains	2T.c	nestion:	PI=Pore lining, RC=Root Channel, M=Matrix
	Indicators: (Ap							owie Cienis		-	Indicators for Problematic Hydric Soils3;
Histosol			710 1111 22121			Redox (SS					2 cm Muck (A10)
	ipedon (A2)			□ s	tripped	i Matrix (S6)				Red Parent Material (TF2)
│	stic (A3) n Sulfide (A4)					Mucky M Gleyed M) (except l	MLR	(A 1)	Other (Explain in Remarks 3
Depleted Be	low Dark Surface	(A11)			eplete	d Matrix (F3)	•			³ Indicators of hydrophytic vegetation and
	Surface (A12)					Dark Surfa					wetland hydrology must be present, unless
	ucky Mineral (S1 yed Matrix (S4))				d Dark Su Depression)			disturbed or problematic.
Restrictive 1	Layer (if present	i):					()				
Type: Depth (in	ches):									Hydr	ic Soil Present? Yes 🔀 No 🗌
	ils are more loa:	my sand	l in texture	and d	есрег	than the	Clallam S	Series.	•		
HYDROL											
	drology Indicate cators (minimum		required: che	eck afi	that a	nnlv)					Secondary Indicators (2 or more required)
		31 311									Described y (national) 3 to 1 moto (equilibrium)
Surface V				ים		Stained Le					Water Stained Leaves (B9) (MRLA 1, 2,
Saturation	ter Table (A2) n (A3)					RA 1, 2, 4. ust (B11)	A, and 41	в)			4A and 4B) Drainage Patterns (B10)
🔲 Water Ma	arks (B1)				Aquatic	Inverteb					Dry-Season Water Table (C2)
	Deposits (B2) osits (B3)					en Sulfide			Dage	. (C'2)	Saturation Visible on Aerial Imagery
	t or Crust (B4)					e of Redu		ng Living (C4)	Kooi	is (C3)	(C9) Geomorphic Position (D2)
☐ Iron Depo	osits (B5)			Œ	Recent	Iron Redu	iction in t	illed Soils			Shallow Aquitard (D3)
	oil Cracks (B6) n Visible on Aer	al Imag	en. (R7)			l or Stressa Explain in		(D1') (LR	RA)	•	FAC=Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
	Vegetated concav			ים	Junei (i	cxpiani iii	TOHILLES	,			Frost-Heave Hummocks (D7)
	•										_ ` ,
Field Observ	ations										
Surface Wate	er Present?	Ye	s 🔲 N	ю 🗖	De	pth (inche	es):				
Water Table	Present?	Ye:	я 🛛 и	lo 🗌	De	թ յի (inc he	es): 0" sur	rface.			
Saturation Pr (includes cap	illary fringe)			۰ 🗆		epth (inch	_				rology Present? Yes 🖾 No 🗌
Describe Rec	orded Data (strea	ım gaug	e, monitorin	ig well	i, aeria	i photos, p	orevious i	nspections), if a	available	as a second
Remarks: Th	ere were areas of	shallow	/ inundation	within	the w	etland are	a on Anri	il 8.			
	 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ 										

APPENDIX III

w i i

WETLAND RATING DATA SHEETS WETLAND FIGURES FOR RATING SHEETS

WETLAND A1-A3 WETLAND C3

APPENDIX III

WETLAND RATING DATA SHEETS WETLAND FIGURES FOR RATING SHEETS

WETLAND A1-A3
WETLAND C3
WETLAND D

RATING SUMMARY – Western Washington

Name of wetland (or ID #): A1	8 A2 001092006	Date of site visit: 7 april 2021
W. David loggy Rated by <u>Loggy Soil & Wetland C</u>	onsulting	Trained by Ecology? Yes _X_No Date of training_11,8-9/20, 2017
HGM Class used for rating	DEPRESSION	Wetland has multiple HGM classes?Y _XN
NOTE: Form is not cor	nnlete withou	at the figures requested (figures can be combined)

Source of base aerial photo/map Jefferson County & Google Photos, USFW, DRN & WF&W maps

OVERALL WETLAND CATEGORY | (based on functions × or special characteristics)

1. Category of wetland based on FUNCTIONS

	Category I — Total score = 23 - 27
	Category II - Total score = 20 - 22
х .	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	# 10 V DO / 17	npro ter Q	ving uality	Н	ydrol	ogic		Habita	it	
					Circle	the of	propr	iate ra	tings	1
Site Potential	H	M	L	Н	M	L	Н	M	L	1
Landscape Potential	Н	(M)	L	Н	M	L	H	M	L	
Value	Н	M	(1)	Н	M	1	Н	M	L	TOTAL
Score Based on Ratings		6			5			7		18

Score for each function based on three ratings (order of ratings is not important) 9 = H, H, H8 = H, H, M7 = H,H,L7 = H,M,M6 = H,M,L 6 = M, M, M5 = H,L,L5 = M, M, L4 = M, L, L3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEG	ORY
Estuarine	I	П
Wetland of High Conservation Value	I	
Bog	1	
Mature Forest	I	
Old Growth Forest	I	
Coastal Lagoon	I	Π
Interdunal	I II II	I 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	SEE NOTE
Hydroperiods	D 1.4, H 1.2	SEE NOTE
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	A
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	В
Map of the contributing basin	D 4.3, D 5.3	С
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	D
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	E
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	N/A

Riverine Wetlands NOTE: HERBA CEOUS AND SHRUB WETLAND AREA COULD NOT BE SHOWN BECAUSE OF DENSE TREES COVER OVER THE WETLAND.

To answer questions:	Figure #
H 1.1, H 1.4	
H 1.2	
R 1.1	
R 2,4	
R 1.2, R 4.2	
R 4.1	
R 2.2, R 2.3, R 5.2	
H 2.1, H 2.2, H 2.3	
R 3.1	
R 3.2, R 3.3	
	H 1.1, H 1.4 H 1.2 R 1.1 R 2.4 R 1.2, R 4.2 R 4.1 R 2.2, R 2.3, R 5.2 H 2.1, H 2.2, H 2.3

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L1.1, L4.1, H1.1, H1.4	
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 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)	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 (can be added to figure above)	5 4.1	
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 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)	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.

P		multiple HGM classes. In the	at apply to the entire unit being rated, you nis case, identify which hydrologic criteria in
1.	Are the water levels in	the entire unit usually contr	olled by tides except during floods?
	NO – go to 2	YES-the	wetland class is Tidal Fringe - go to 1.1
1	1.1 Is the salinity of the w	rater during periods of annu	al low flow below 0.5 ppt (parts per thousand)?
		classified as a Freshwater T geit is an Estuarine wetlan	YES – Freshwater Tidal Fringe idal Fringe use the forms for Riverine wetlands. If it d and is not scored. This method cannot be used to
2.		is flat and precipitation is t ff are NOT sources of water	he only source (>90%) of water to it. Groundwater to the unit.
	NO - go to 3 If your wetland can be c	lassified as a Flats wetland, u	YES The wetland class is Flats use the form for Depressional wetlands.
3.	The vegetated part o plants on the surface	unit meet all of the following the wetland is on the shore at any time of the year) at least water area is deeper that	es of a body of permanent open water (without any east 20 ac (8 ha) in size;
	NO – go to 4	YES - The wetland o	lass is Lake Fringe (Lacustrine Fringe)
4.	_x The wetland is on a _x The water flows thr seeps. It may flow si	[20] 전 11 (12) [20] [20] [20] [20] [20] [20] [20] [20]	dual), ection (unidirectional) and usually comes from a a swale without distinct banks,
	NO – go to 5		YES - The wetland class is Slope
		그리고 있다고 있는데 이번 경기 보고 있는데 그리고 있다면 그리고 있는데 그리고 있다면 하는데 그리고 있다.	f wetlands except occasionally in very small and ions are usually <3 ft diameter and less than 1 ft

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 A1 & A2 001092006

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

 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.

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 Wetland has persistent, ungrazed plants > ½ of area Wetland has persistent, ungrazed plants > ½ of area Wetland has persistent, ungrazed plants > ½ of area points = 1 Wetland has persistent, ungrazed plants < ½ 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 Area seasonally ponded is < ½ total area of wetland Area seasonally ponded is < ½ total area of wetland Points = 0	4
Total for D 1 Add the points in the boxes above	11
Rating of Site Potential If score is:12-16 = HX _6-11 = M0-5 = L Record the rating on the first page D 2.0. Does the landscape have the potential to support the water quality function of the site?	ge
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:3 or 4 = HX _1 or 2 = M0 = L Record the rating on the fire	st pag
D 3.0. Is the water quality improvement provided by the site valuable to society?	1128
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	0
	0
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the 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 a	and stream degradati	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) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing di Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flow	itch points = 1	4
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet The wetland is a "headwater" wetland Wetland is flat but has small depressions on the surface that trap water Marks of ponding less than 0.5 ft (6 in)	points = 7 points = 5 points = 3 points = 3 points = 1 points = 0	3
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of u 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 The area of the basin is 10 to 100 times the area of the unit The area of the basin is more than 100 times the area of the unit Entire wetland is in the Flats class	points = 5 points = 3 points = 0 points = 5	3
Total for D 4 Add the points i	n the boxes above	10
Rating of Site Potential If score is:12-16 = HX_6-11 = M0-5 = 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 la >1 residence/ac, urban, commercial, agriculture, etc.)?	nd uses (residential at Yes = 1 No = 0	0
Total for D 5 Add the points i	n the boxes above	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?	THE PERSON	18
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best mate the wetland unit being rated. Do not add points. Choose the highest score if more than one The wetland captures surface water that would otherwise flow down-gradient into areas we 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. Flooding from groundwater is an issue in the sub-basin.	condition is met.	
The existing or potential outflow from the wetland is so constrained by human or natural cowater stored by the wetland cannot reach areas that flood. Explain why 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	I flood control plan? Yes = 2 No = 0	0
Total for D 6 Add the points i	n the boxes above	0
Rating of Value If score is:2-4 = H1 = MX_0 = L	Record the rating on the	first page

These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check 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 X Emergent 3 structures: points = 2 X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X 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 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 (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 X Seasonally flooded or inundated 3 types present: points = 2 X 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 H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft2. 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 points = 2 5 - 19 species points = 1 1 < 5 species points = 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. If you have four or more plant classes or three classes and open water, the rating is always high. 2 None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are HIGH = 3points

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. The number of check	es is the number of nainte	
	And the second of the second o	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft lo	mgj.	
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plan over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft	STATE OF THE STATE	
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 the where wood is exposed)	at have not yet weathered	
X At least ¼ ac of thin-stemmed persistent plants or woody branches are pres	ant in areas that are	
permanently or seasonally inundated (structures for egg-laying by amphibit		
X Invasive plants cover less than 25% of the wetland area in every stratum of	EL N	
strata)	piants (see in 1.1.1 for instruj	2
otal for H 1 Add	the points in the boxes above	8
ating of Site Potential If score is:15-18 = HX_7-14 = M0-6 = L	Record the rating on t	the first pag
2.0. Does the landscape have the potential to support the habitat functions o	of the site?	
2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate: % undisturbed habitat 38 + [(% moderate and low intensity l	and uses)/2] 4 = 42 %	
If total accessible habitat is:		34
> 1/3 (33.3%) of 1 km Polygon	points = 3	3
20-33% of 1 km Polygon	points = 2	
10-19% of 1 km Polygon	points = 1	
< 10% of 1 km Polygon	points = 0	
2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate: % undisturbed habitat 44 + [(% moderate and low intensity	land uses)/2] 4 = 48 %	
Undisturbed habitat > 50% of Polygon	points = 3	2
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	
Undisturbed habitat 10-50% and > 3 patches	points = 1	
Undisturbed habitat < 10% of 1 km Polygon	points = 0	
2.3. Land use intensity in 1 km Polygon: If	1	
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	0
≤ 50% of 1 km Polygon is high intensity	points = 0	
	the points in the boxes above	5
ating of Landscape Potential If score is: X_4-6 = H1-3 = M<1 = L	Record the rating on th	ne first pag
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 anim	al on the state or federal lists)	
It is mapped as a location for an individual WDFW priority species	ELECTROCOMITATION THOSE CHOICE STOCK SERVICE STOCK STO	
It is a Wetland of High Conservation Value as determined by the Departmen	t of Natural Resources	
It has been categorized as an important habitat site in a local or regional cor		
Shoreline Master Plan, or in a watershed plan	ALTERNATION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF	
Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1	1
Site does not meet any of the criteria above	points = 0	
lating of Value If score is: 2 = H X1 = M 0 = L	Record the rating on	the first na

WDFW Priority Habitats

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

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

LEL	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.
ÆX.	Old-growth/Mature forests: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less, than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
(E)	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.
<i>(117</i>	Nearshore: 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.
[ii]	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.
X/	Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft

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

(6 m) long.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetla	and Type	Category
Check	off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
	. 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	
C11	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area	
SC 1.1.	Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category 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) At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	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 2.2.	Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category I Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	Cat. I
36 2.3.	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.	
	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 = Is not a bog	
iC 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	

Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YESyou 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
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) Yes — Go to SC 5.1 No = Not a wetland in a coastal lagoon 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). At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. The wetland is larger than 1/10 ac (4350 ft2) Yes = Category I No = Category II	Cat. I
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 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating	Cat I
C 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2	Cat. II
C 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. III

RATING SUMMARY – Western Washington

Name of wetland (or ID #):	1092006	Date of site visit: 23-25March 2021				
W. David loggy Rated by Loggy Soil & Wetland Co		_Trained by Ecology?Yes _X_No Date of training11/8-9/20, 2017				
HGM Class used for rating	DEPRESSION	Wetland has multiple HGM classes?Y_X_N				

NOTE: Form is not complete without the figures requested (figures can be combined).

Source of base aerial photo/map Jefferson County & Google Photos, USFW, DRN & WF&W maps

OVERALL WETLAND CATEGORY __ IV __ (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
	Category III - Total score = 16 - 19
x	Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality		Н	ydrol	ogic		Habita	it		
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	M	L	Н	M	L	Н	M	L	
Landscape Potential	Н	M	(1)	Н	M	1	H	M	L	
Value	Н	M	(1)	Н	M	1	Н	M	L	TOTAL
Score Based on Ratings		4			4			7		15

Score for each function based on three ratings (order of ratings is not important) 9 = H, H, H8 = H, H, M7 = H, H, L7 = H,M,M6 = H,M,L6 = M,M,M5 = M,M,L4 = M, L, L3 = 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	1			
Old Growth Forest	I			
Coastal Lagoon	I 11			
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	SEE NOTE
Hydroperiods	D 1.4, H 1.2	SEE NOTE
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	A
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	В
Map of the contributing basin	D 4.3, D 5.3	С
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	D
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	E
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	N/A

Riverine Wetlands NOTE: HERBA CEOUS AND SHRUB WETLAND AREA COULD NOT BE SHOWN BECAUSE OF DENSE TREES COVER OVER THE WETLAND.

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	The state of the s
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	L1.1, L4.1, H1.1, H1.4	
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 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)	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 (can be added to figure above)	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
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)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

deep).

stream or river,

Does the entire wetland unit meet all of the following criteria?

The overbank flooding occurs at least once every 2 years.

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

	questions 1-7 apply, and		is case, identify which hydrologic criteria in			
1.	Are the water levels in	the entire unit usually contro	lled by tides except during floods?			
	NO - go to 2	YES - the w	retland class is Tidal Fringe - go to 1.1			
1	1.1 Is the salinity of the	water during periods of annua	l low flow below 0.5 ppt (parts per thousand)?			
	If your wetland can b	e classified as a Freshwater Tion nge it is an Estuarine wetland	YES – Freshwater Tidal Fringe dal Fringe use the forms for Riverine wetlands. If it and is not scored. This method cannot be used to			
2,		it is flat and precipitation is th off are NOT sources of water t	e only source (>90%) of water to it. Groundwater to the unit.			
	NO - go to 3 If your wetland can be	classified as a Flats wetland, us	YES The wetland class is Flats se 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).					
	NO – go to 4	YES - The wetland cl	ass is Lake Fringe (Lacustrine Fringe)			
4.	_x_The wetland is on a _x_The water flows the seeps. It may flow s		ual), ction (unidirectional) and usually comes from a swale without distinct banks,			
	NO - go to 5		YES - The wetland class is Slope			
			wetlands except occasionally in very small and ons are usually <3 ft diameter and less than 1 ft			

___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that

Wetland name or number A3 001092006

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

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

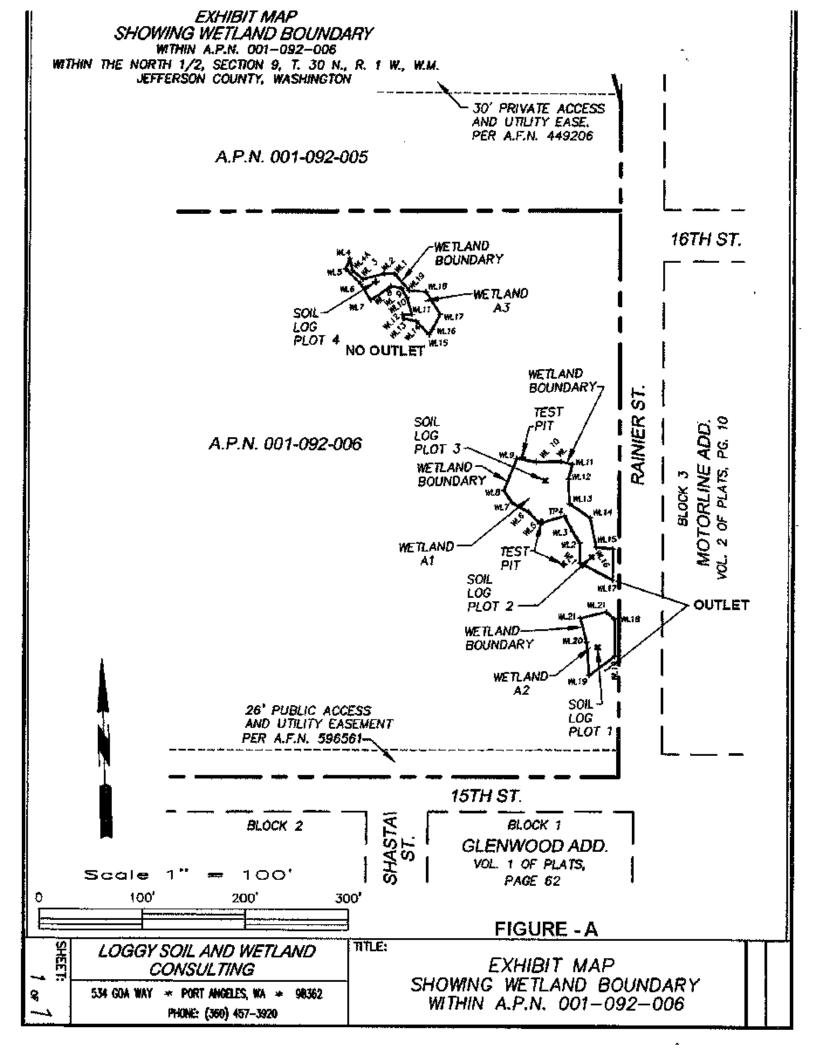
If you are still unable to determine which of the above criteria apply to your wetland, or if you have more than 2 HGM classes within a wetland boundary, classify the wetland as Depressional for the rating.

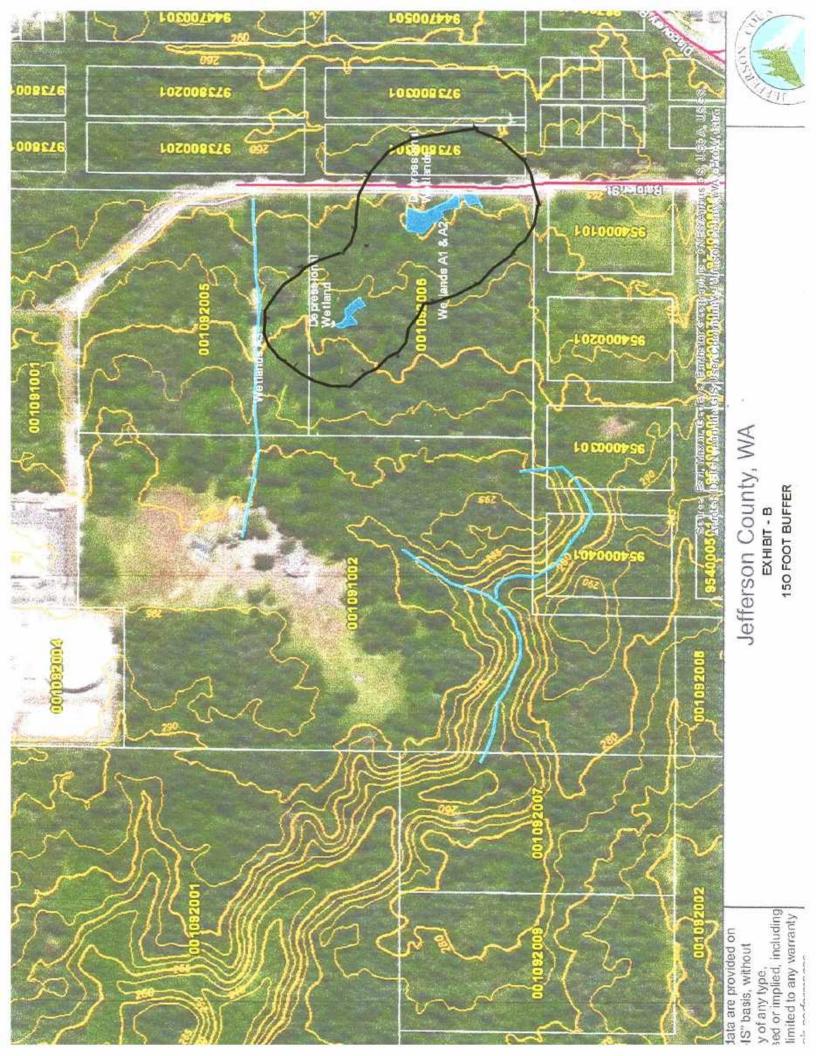
DEPRESSIONAL AND FLATS WETLANDS	
Water Quality Functions - Indicators that the site functions to improve water quality	
D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 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.	
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 Wetland has persistent, ungrazed plants > $\frac{1}{10}$ of area Wetland has persistent, ungrazed plants > $\frac{1}{10}$ of area Wetland has persistent, ungrazed plants < $\frac{1}{10}$ 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 Area seasonally ponded is < ½ total area of wetland points = 2 Area seasonally ponded is < ½ total area of wetland	2
Total for D 1 Add the points in the boxes above	10
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 D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0 D 2.3. Are there septic systems within 250 ft of the wetland? approved but not actavated 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?	0 0
Source	0
Total for D 2 Add the points in the boxes above	0
Rating of Landscape Potential If score is:3 or 4 = H1 or 2 = M _X_0 = L Record the roting on the f	irst pag
D 3.0. Is the water quality improvement provided by the site valuable to society?	0.50
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	0
	0
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which the unit is found)? Yes = 2 No = 0	

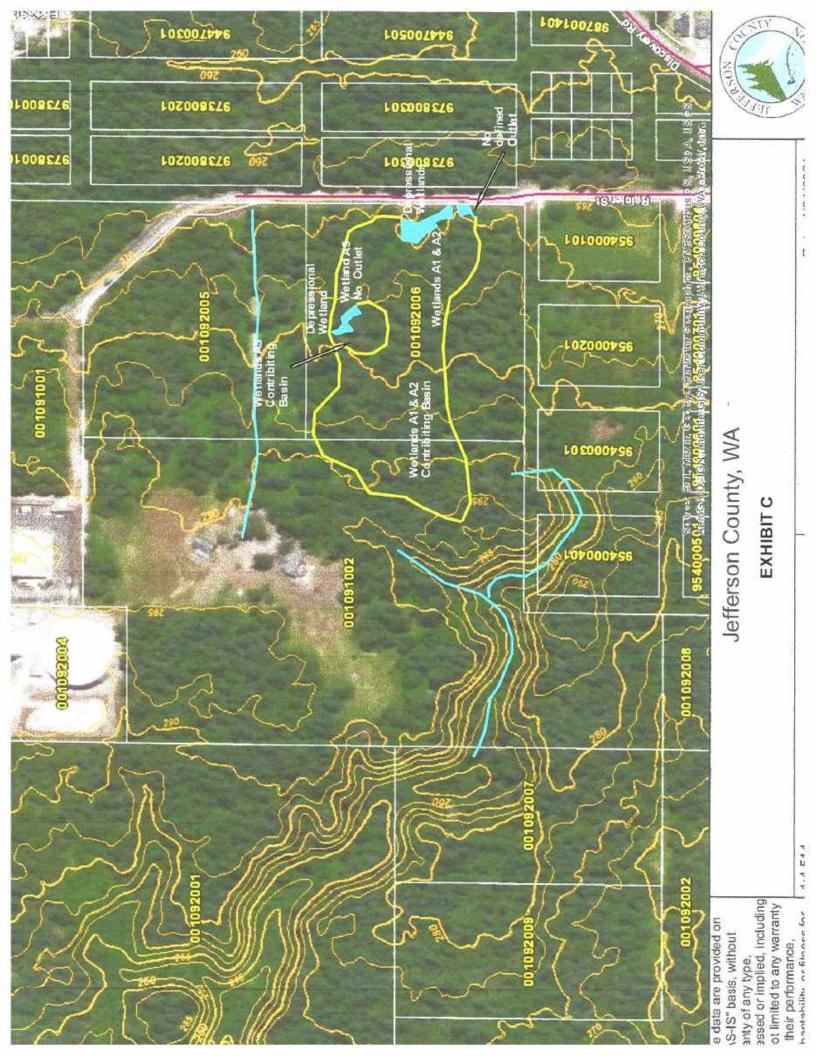
DEPRESSIONAL AND FLATS W	/ETLANDS				
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation					
D 4.0. Does the site have the potential to reduce flooding and erosion?					
D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving i Wetland has an intermittently flowing stream or ditch, OR highly constrict Wetland is a flat depression (QUESTION 7 on key), whose outlet is a perm Wetland has an unconstricted, or slightly constricted, surface outlet that	cted permanently flowing outletpoints = 2 nanently flowing ditch points = 1	4			
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above with no outlet, measure from the surface of permanent water or if dry, the Marks of ponding are 3 ft or more above the surface or bottom of outlet Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet The wetland is a "headwater" wetland Wetland is flat but has small depressions on the surface that trap water Marks of ponding less than 0.5 ft (6 in)	e deepest part. points = 7	n			
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the rate contributing surface water to the wetland to the area of the wetland unit. The area of the basin is less than 10 times the area of the unit. The area of the basin is 10 to 100 times the area of the unit. The area of the basin is more than 100 times the area of the unit. Entire wetland is in the Flats class.		3			
Total for D 4	Add the points in the boxes above	10			
Rating of Site Potential If score is:12-16 = HX_6-11 = M0-5 = L	Record the rating on the fi	rst page			
D 5.0. Does the landscape have the potential to support hydrologic func	tions 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 general	te excess runoff? Yes = 1 No = 0	0			
D 5.3. Is more than 25% of the contributing basin of the wetland covered with in >1 residence/ac, urban, commercial, agriculture, etc.)?	ntensive human land uses (residential at Yes = 1 No = 0	0			
Total for D 5	Add 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 fi	rst page			
D 6.0. Are the hydrologic functions provided by the site valuable to socie	ety?	AV TIE			
D 6.1. The unit is in a landscape that has flooding problems. Choose the descript the wetland unit being rated. Do not add points. Choose the highest score The wetland captures surface water that would otherwise flow down-gradamaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of Surface flooding problems are in a sub-basin farther down-gradient. Flooding from groundwater is an issue in the sub-basin. The existing or potential outflow from the wetland is so constrained by h	e if more than one condition is met. dient into areas where flooding has unit. points = 2 points = 1 points = 1				
water stored by the wetland cannot reach areas that flood. Explain why points = 0 There are no problems with flooding downstream of the wetland. points = 0					
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0					
Total for D 6	Add the points in the boxes above	0			
Rating of Value If score is:2-4 = H1 = MX_0 = L	Record the rating on the fi	rst page			

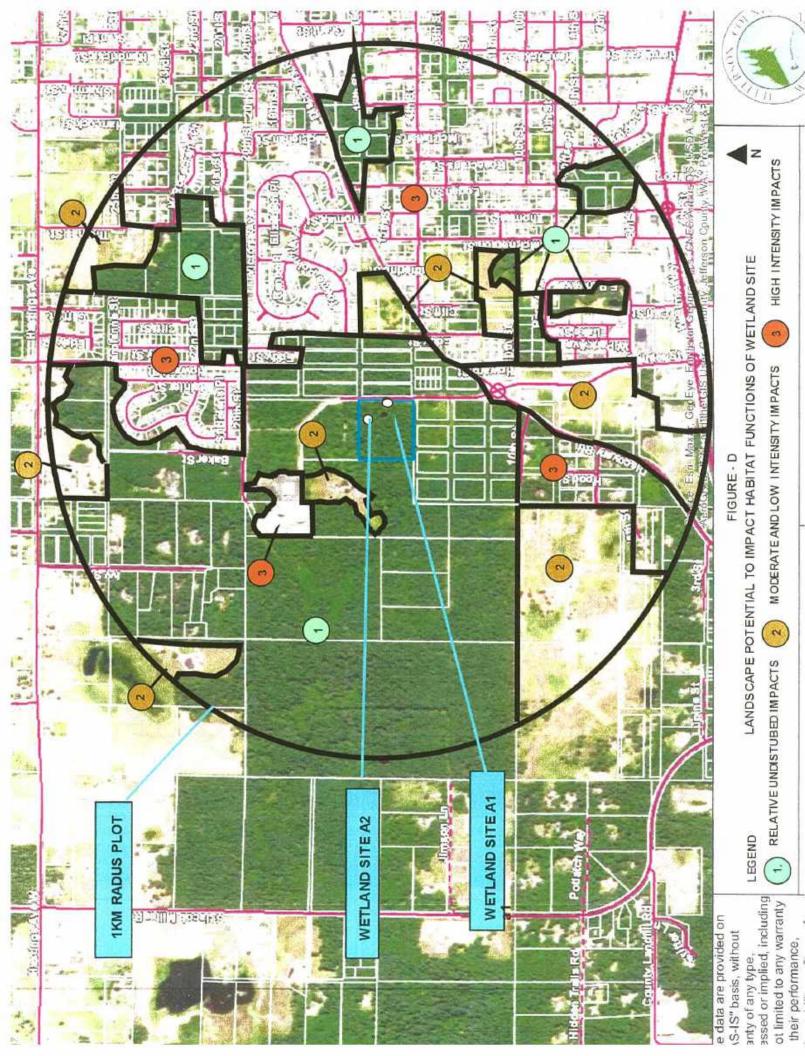
Matland Dating System for Wastern WA: 2014 Undata

These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1, Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of % 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 X Emergent 3 structures: points = 2 X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: X 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 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 (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 X Seasonally flooded or inundated 3 types present: points = 2 X Occasionally flooded or inundated 2 types present: points = 1 2 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 H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft2. 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 points = 2 5 - 19 species points = 1 1 < 5 species points = 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. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are HIGH = 3points







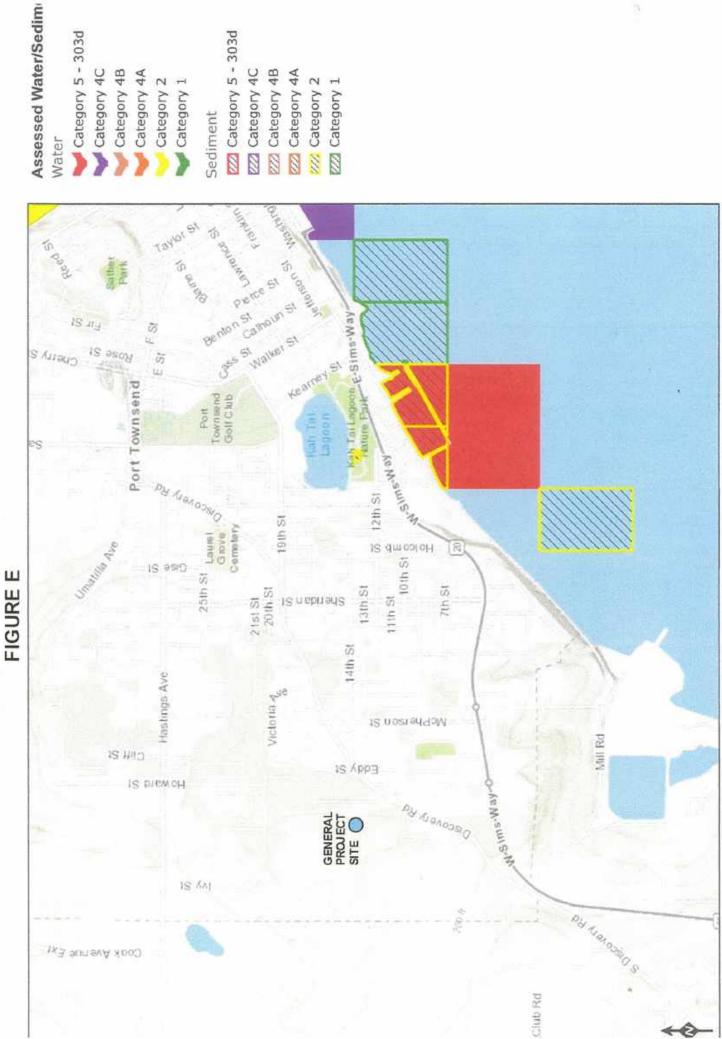


Category 5 - 303d

Category 4C Category 4B Category 4A

Category 2

Category 1



DEPARTMI

0.25

Miles

RATING SUMMARY – Western Washington

Name of wetland (or ID #);	Date of site visit: 24 May 2021
Rated by Loggy Soil & Wetland Consulting	Frained by Ecology? Yes <u>X</u> No Date of training 11.8-9/20, 201
HGM Class used for rating DEPRESSION	Wetland has multiple HGM classes?Y _X _N
NOTE: Form is not complete without Source of base aerial photo/map	the figures requested (figures can be combined). lefferson County & Google Photos, USFW, DRN & WF&W maps
OVERALL WETLAND CATEGORY	(based on functionsx or special characteristics)
1. Category of wetland based on FUN	ICTIONS
Category I — Total score =	23 - 27

	_category 1 = Total Score = 25 - 27
	_Category II - Total score = 20 - 22
x	_Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	UNCTION Improving Water Quality		Hydrologic		Habitat					
					Circle	the ap	propr	iate ra	tings	1
Site Potential	Н	M	L	Н	M) L	Н	M	L	
Landscape Potential	Н	(V)	L	Н	M	0	H	M	L	
Value	Н	Μ	L	Н	M	1	Н	(M)	L	TOTAL
Score Based on Ratings		5			4			7		16

Score for each function based on three ratings (order of ratings is not important) 9 = H, H, H8 = H,H,M 7 = H,H,L7 = H,M,M6 = H,M,L 6 = M, M, M5 = H, L, L5 = M,M,L4 = M, L, L3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGOR		
Estuarine	I II		
Wetland of High Conservation Value	I		
Bog	I		
Mature Forest	I		
Old Growth Forest	I	I II	
Coastal Lagoon	I		
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	A
Hydroperiods	D 1.4, H 1.2	A
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	A
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	A
Map of the contributing basin	D 4.3, D 5.3	A
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	D
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	E
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	N/A

Riverine Wetlands

NOTE: HERBACEOUS AND SHRUB WETLAND AREA COULD NOT BE SHOWN BECAUSE OF DENSE TREES COVER OVER THE WETLAND.

Ratingwas done check two other rating of wetland

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	L1.1, L4.1, H1.1, H1.4	
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 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)	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 (can be added to figure above)	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
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)	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.

(questions 1-7 apply, and	go to Question 8.	
1.	Are the water levels in	the entire unit usually cont	rolled by tides except during floods?
	NO - go to 2	YES - the	wetland class is Tidal Fringe - go to 1.1
	1.1 Is the salinity of the v	vater during periods of ann	ual low flow below 0.5 ppt (parts per thousand)?
	If your wetland can be	e classified as a Freshwater T nge it is an Estuarine wetlar	YES – Freshwater Tidal Fringe Fidal Fringe use the forms for Riverine wetlands. If it and and is not scored. This method cannot be used to
2.		t is flat and precipitation is off are NOT sources of water	the only source (>90%) of water to it. Groundwater to the unit.
	NO - go to 3 If your wetland can be o	classified as a Flats wetland,	YES The wetland class is Flats use the form for Depressional wetlands.
3.	The vegetated part of plants on the surface	d unit meet all of the follow of the wetland is on the shor e at any time of the year) at open water area is deeper th	es of a body of permanent open water (without any least 20 ac (8 ha) in size;
	NO - go to 4	YES - The wetland	class is Lake Fringe (Lacustrine Fringe)
4.	_x The wetland is on a _x The water flows the seeps. It may flow s	가지 그렇다는 그들이 내용하는 것이 아니는 그들은 사람들이 되었다면 하지만	edual), rection (unidirectional) and usually comes from in a swale without distinct banks,
	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.

Wetland name or number A2 001092006

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

 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.

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	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	4
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 Wetland has persistent, ungrazed, plants > ½ of area Wetland has persistent, ungrazed plants > ½ of area Wetland has persistent, ungrazed plants > ½ of area points = 1 Wetland has persistent, ungrazed plants < ½ of area points = 0	5
D 1.4. Characteristics of seasonal ponding or inundation:	1.0
This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is < ¾ total area of wetland points = 2 Area seasonally ponded is < ¾ total area of wetland points = 0	0
Total for D 1 Add the points in the boxes above	9
Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L Record the rating on the first po	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	0
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_Grazing Yes = 1 No = 0	1
Total for D 2 Add 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 fi	rst pag
D 3.0. Is the water quality improvement provided by the site valuable to society?	55115
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	0
	0
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which the unit is found)? Yes = $2 \text{ No} = 0$	

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DEPRESSIONAL AND FLATS V Hydrologic Functions - Indicators that the site functions to re		
D 4.0. Does the site have the potential to reduce flooding and erosion?	dec nooning and stream degradation	
D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving Wetland has an intermittently flowing stream or ditch, OR highly constri Wetland is a flat depression (QUESTION 7 on key), whose outlet is a pern Wetland has an unconstricted, or slightly constricted, surface outlet that	icted permanently flowing outletpoints = 2 nanently flowing ditch points = 1	
D 4.2. Depth of storage during wet periods: Estimate the height of ponding about with no outlet, measure from the surface of permanent water or if dry, the Marks of ponding are 3 ft or more above the surface or bottom of outlet Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet The wetland is a "headwater" wetland Wetland is flat but has small depressions on the surface that trap water Marks of ponding less than 0.5 ft (6 in)	ne deepest part. points = 7	
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the racontributing surface water to the wetland to the area of the wetland unit. The area of the basin is less than 10 times the area of the unit. The area of the basin is 10 to 100 times the area of the unit. The area of the basin is more than 100 times the area of the unit. Entire wetland is in the Flats class.		
Total for D 4	Add the points in the boxes above 8	
Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L	Record the rating on the first p	oage
D 5.0. Does the landscape have the potential to support hydrologic fund		
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 general		
D 5.3. Is more than 25% of the contributing basin of the wetland covered with i >1 residence/ac, urban, commercial, agriculture, etc.)?	intensive human land uses (residential at Yes = 1 No = 0	
Total for D 5	Add 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 p	oage
D 6.0. Are the hydrologic functions provided by the site valuable to soci	ety?	
D 6.1. The unit is in a landscape that has flooding problems. Choose the descripthe wetland unit being rated. Do not add points. Choose the highest score the wetland captures surface water that would otherwise flow down-grademaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of Surface flooding problems are in a sub-basin farther down-gradient. Flooding from groundwater is an issue in the sub-basin. The existing or potential outflow from the wetland is so constrained by he	unit. points = 2 points = 1 points = 1 points = 1	
water stored by the wetland cannot reach areas that flood. Explain why	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	_
D 6.2. Has the site been identified as important for flood storage or flood conve	Yes = 2 No = 0	
Total for D 6	Add the points in the boxes above 0	_
Rating of Value If score is:2-4 = H1 = MX 0 = L	Record the rating on the first p	age

Wetland Rating System for Western WA: 2014 Undate

These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of % 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 X Emergent 3 structures; points = 2 X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: X 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 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 (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 X Occasionally flooded or inundated 2 types present: points = 1 Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland X Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft2. 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 points = 2 1 5 - 19 species points = 1 < 5 species points = 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. If you have four or more plant classes or three classes and open water, the rating is always high. Moderate = 2 points None = 0 points Low = 1 point All three diagrams in this row are HIGH = 3points

Wetland name or number 63 00 092006		
H 1.5. Special habitat features: Check the habitat features that are present in the wetland. The number of check X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft log X Standing snags (dbh > 4 in) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plan over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft Stable steep banks of fine material that might be used by beaver or muskrate slope) OR signs of recent beaver activity are present (cut shrubs or trees the where wood is exposed) X At least ¼ ac of thin-stemmed persistent plants or woody branches are present permanently or seasonally inundated (structures for egg-laying by amphibitive stratum) X Invasive plants cover less than 25% of the wetland area in every stratum of strata)	ong). Ints extends at least 3.3 ft (1 m) t (10 m) t for denning (> 30 degree of have not yet weathered ent in areas that are ians)	2
Rating of Site Potential If score is:15-18 = HX_7-14 = M0-6 = L	Record the rating on t	8 he first near
NAME OF THE OWNER OWNE		ne just page
H 2.0. Does the landscape have the potential to support the habitat functions of	f the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 38 + [(% moderate and low intensity I lf total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon 20-33% of 1 km Polygon 10-19% of 1 km Polygon < 10% of 1 km Polygon	points = 3 points = 2 points = 1 points = 0	3
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat75 + [(% moderate and low intensity I Undisturbed habitat > 50% of Polygon Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat < 10% of 1 km Polygon		2
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	points = (- 2) points = 0	0
ALC TO THE RESERVE AND THE PARTY OF THE PART	the points in the boxes above	5
Rating of Landscape Potential If score is: X_4-6 = H1-3 = M<1 = L	Record the rating on th	e 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? 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 anim It is mapped as a location for an individual WDFW priority species It is a Wetland of High Conservation Value as determined by the Departmen It has been categorized as an important habitat site in a local or regional conservation.	points = 2 al on the state or federal lists) t of Natural Resources	
Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1	4
Site does not meet any of the criteria above	points = 0	
Pating of Value of score is: 2 - H X1 - M 0 - I	Record the rating on I	ha first naa

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. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

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

12/	Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
ii)	Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHSreport).
77	Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
X	Old-growth/Mature forests: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less, than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
117	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.
	Nearshore: 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.
[7]	Cliffs: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
77	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.
x/	Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western

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

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.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type			Category
Check off any criteria that apply to the wetland. Circle	the category when the appropri	ate criteria are met.	
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for 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 Refug Preserve, State Park or Educational, Environme	ental, or Scientific Reserve desig		Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and mee The wetland is relatively undisturbed (has than 10% cover of non-native plant species At least ¼ of the landward edge of the wet	no diking, ditching, filling, cultiv s. (If non-native species are <i>Spa</i>	ation, grazing, and has less orting, see page 25)	Cat. I
mowed grassland. The wetland has at least two of the follow contiguous freshwater wetlands.		ressions with open water, or lategory I No = Category II	Cat. II
SC 2.0. Wetlands of High Conservation Value (W SC 2.1. Has the WA Department of Natural Resources of Conservation Value? SC 2.2. Is the wetland listed on the WDNR database as SC 2.3. Is the wetland in a Section/Township/Range the http://www1.dnr.wa.gov/nhp/refdesk/datasea	updated their website to include Yes – Go t a Wetland of High Conservation Yes = Cate at contains a Natural Heritage w	o SC 2.2 No – Go to SC 2.3 No – Go to SC 2.3 No = Not a WHCV	Cat. I
	Contact WNHP/WDNR and go to	rvation Value and listed it on	
SC 3.0. Bogs Does the wetland (or any part of the unit) mee below. If you answer YES you will still need to SC 3.1. Does an area within the wetland unit have orgamore of the first 32 in of the soil profile? SC 3.2. Does an area within the wetland unit have orgaver bedrock, or an impermeable hardpan such pond? SC 3.3. Does an area with peats or mucks have more the cover of plant species listed in Table 4? NOTE: If you are uncertain about the extent of measuring the pH of the water that seeps into plant species in Table 4 are present, the wetlan SC 3.4. Is an area with peats or mucks forested (> 30% western hemlock, lodgepole pine, quaking aspecies (or combination of species) listed in Tall	rate the wetland based on its francissoil horizons, either peats of Yes – Go to anic soils, either peats or mucks, has clay or volcanic ash, or that Yes – Go to han 70% cover of mosses at grown Yes = Is a Catego mosses in the understory, you had is a bog. cover) with Sitka spruce, subalpen, Engelmann spruce, or weste	that are less than 16 in deep are floating on top of a lake or oSC 3.3 No = Is not a bog and level, AND at least a 30% ry I bog No - Go to SC 3.4 may substitute that criterion by the pH is less than 5.0 and the line fir, western red cedar, rn white pine, AND any of the the cover under the canopy?	Cat. I

Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YESyou 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
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) Yes — Go to SC 5.1 No = Not a wetland in a coastal lagoon C 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). At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. The wetland is larger than 1/10 ac (4350 ft2) Yes = Category I No = Category II	Cat. I
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 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating	Cat I
C 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 C 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	

10-2426-21		
H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. The number of checks is the number of checks is the number of checks in the number of checks is the number of checks in the number of chec	nber of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).		
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	s at least 3.3 ft (1 m)	
Stable steep banks of fine material that might be used by beaver or muskrat for dennir	ng (> 30 degree	
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not	yet weathered	
where wood is exposed)		
X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in area	s that are	
permanently or seasonally inundated (structures for egg-laying by amphibians)		
X Invasive plants cover less than 25% of the wetland area in every stratum of plants (see	H 1.1 for list of	2
Strata) Total for H 1 Add the points	in the boxes above	8
Rating of Site Potential If score is: 15-18 = H X 7-14 = M0-6 = L	Record the rating on	
4 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 38 + [(% moderate and low intensity land uses)/	21 4 = 42 %	
If total accessible habitat is:	21	- 31
> 1/3 (33.3%) of 1 km Polygon	points = 3	0.00
20-33% of 1 km Polygon	points = 2	3
10-19% of 1 km Polygon	points = 1	
< 10% of 1 km Polygon	points = 0	
2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate: % undisturbed habitat 75 + [(% moderate and low intensity land uses)/	21 7 = 82 %	
Undisturbed habitat > 50% of Polygon	points = 3	2
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	
Undisturbed habitat 10-50% and > 3 patches	points = 1	
Undisturbed habitat < 10% of 1 km Polygon	points = 0	
2.3. Land use intensity in 1 km Polygon: If		
> 50% of 1 km Polygon is high intensity land use	paints = (- 2)	0
≤ 50% of 1 km Polygon is high intensity	points = 0	
	in the boxes above	5
Rating of Landscape Potential If score is: X 4-6 = H1-3 = M<1 = L	Record the rating on t	he first page
H 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 on	ly 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 si	tate 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 Natura		
It has been categorized as an important habitat site in a local or regional comprehensive	e plan, in a	
Shoreline Master Plan, or in a watershed plan	polote - 4	Na.
Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1	1
Site does not meet any of the criteria above	points = 0	the first pac

WDFW Priority Habitats

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

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland 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).

[27	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 multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less, than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west 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).
[2]	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.
	Nearshore: 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.
TT)	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.
X	Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft

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

(6 m) long.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetl	and Type			Category
Check	off any criteria that apply to the wetland. Circle t	the category when the appro	priate criteria are met.	
SC 1.0	Does the wetlands Does the wetland meet the following criteria fo The dominant water regime is tidal, Vegetated, and With a salinity greater than 0.5 ppt	r Estuarine wetlands? Yes —Go to SC 1.1	No= Not an estuarine wetland	
5011			And the second s	
SC 1.1.	Is the wetland within a National Wildlife Refuge Preserve, State Park or Educational, Environme	ntal, or Scientific Reserve de		Cat. I
SC 1.2.	Is the wetland unit at least 1 ac in size and meet The wetland is relatively undisturbed (has a than 10% cover of non-native plant species At least % of the landward edge of the wet	no diking, ditching, filling, cu s. (If non-native species are	ltivation, grazing, and has less Spartina, see page 25)	Cat. I
	mowed grassland. The wetland has at least two of the following contiguous freshwater wetlands.		depressions with open water, or = Category No = Category	Cat. II
SC 2.1.	. Wetlands of High Conservation Value (W Has the WA Department of Natural Resources of Conservation Value? Is the wetland listed on the WDNR database as	pdated their website to incl Yes — G a Wetland of High Conserva Yes = 0	tion Value? Category I No = Not a WHCV	Cat. I
	Is the wetland in a Section/Township/Range that http://www1.dnr.wa.gov/nhp/refdesk/datasea Yes — Co Has WDNR identified the wetland within the S/their website?	rch/wnhpwetlands.pdf ontact WNHP/WDNR and go T/R as a Wetland of High Co	o to SC 2.4 No = Not a WHCV	
SC 3.0	. Bogs			
SC 3.2.	Does the wetland (or any part of the unit) meet below. If you answer YES you will still need to a Does an area within the wetland unit have orga more of the first 32 in of the soil profile? Does an area within the wetland unit have orga over bedrock, or an impermeable hardpan such pond? Does an area with peats or mucks have more the cover of plant species listed in Table 4? NOTE: If you are uncertain about the extent of measuring the pH of the water that seeps into a plant species in Table 4 are present, the wetland is an area with peats or mucks forested (> 30% western hemlock, lodgepole pine, quaking aspesspecies (or combination of species) listed in Table 2.	rate the wetland based on it nic soil horizons, either peat Yes – Granic soils, either peats or much as clay or volcanic ash, or the Yes – Gran 70% cover of mosses at gover 1 yes = 1	is functions. Is or mucks, that compose 16 in or Is to SC 3.3 No – Go to SC 3.2 Icks, that are less than 16 in deep Inat are floating on top of a lake or Is to SC 3.3 No = Is not a bog Iround level, AND at least a 30% Is gory I bog No – Go to SC 3.4 Is unay substitute that criterion by It the pH is less than 5.0 and the Is alpine fir, western red cedar, Is stern white pine, AND any of the Is of the cover under the canopy?	Cat. I

Does the wetland have at least 1 contiguous acre 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
C 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) Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	Cat. I
C 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). At least 36 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	Cat. II
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:	
In practical terms that means the following geographic areas:	
Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105	Cat I
Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109	Cat I
Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105	Cat I
Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating 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 for the three aspects of function)? Yes = Category I No – Go to SC 6.2	
Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating C 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category No – Go to SC 6.2 of C 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. II
Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating No = not an interdunal wetland for rating No = not an interdunal wetland for rating 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 I No – Go to SC 6.3	
Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 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 for the three aspects of function)? Yes = Category No – Go to SC 6.2 SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. II

RATING SUMMARY – Western Washington

Name of wetland (or ID #): A1 & A2 001092006	Date of site visit: 7 april 2021
W. David loggy Rated by Loggy Soil & Wetland Consulting	Trained by Ecology? Yes _X_No Date of training_118-9/20, 201
HGM Class used for rating DEPRESSION	Wetland has multiple HGM classes?Y X N
[14] [2] [1.5] [1.	It the figures requested (figures can be combined). Jefferson County & Google Photos, USFW, DRN & WF&W maps
OVERALL WETLAND CATEGORY	(based on functionsx_ 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 Category IV - Total score = 9 - 15

FUNCTION	1000000	npro ter Q	ving uality	Н	ydrole	ogic	-9	Habita	it	
					Circle	the ap	propr	iate ra	tings	
Site Potential	H	M	L	Н	M	Ļ	Н	M	L	
Landscape Potential	Н	0	L	Н	M	L	H	M	L	
Value	Н	М	1	Н	M	1	Н	M	L	TOTAL
Score Based on Ratings		6			5			7		18

Score for each function based on three ratings (order of ratings is not important) 9 = H, H, H8 = H, H, M7 = H,H,L7 = H,M,M6 = H,M,L6 = M, M, M5 = H,L,L5 = M,M,L4 = M.L.L3 = L, L, L

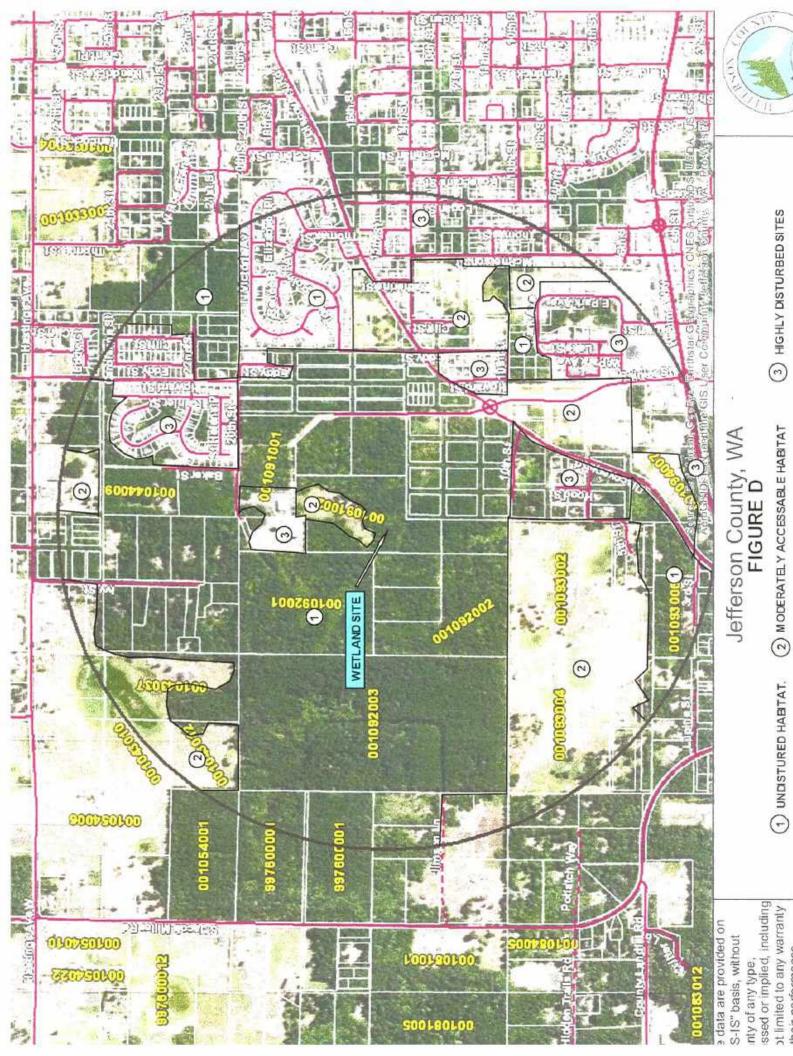
2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATE	GORY	
Estuarine	1	П	
Wetland of High Conservation Value		I	
Bog		I	
Mature Forest		I	
Old Growth Forest		I	
Coastal Lagoon	1	П	
Interdunal	I II	III IV	
None of the above	N/A		

Jefferson County, WA

EXHIBIT A

y of any type, led or implied, including limited to any warranty



0.25

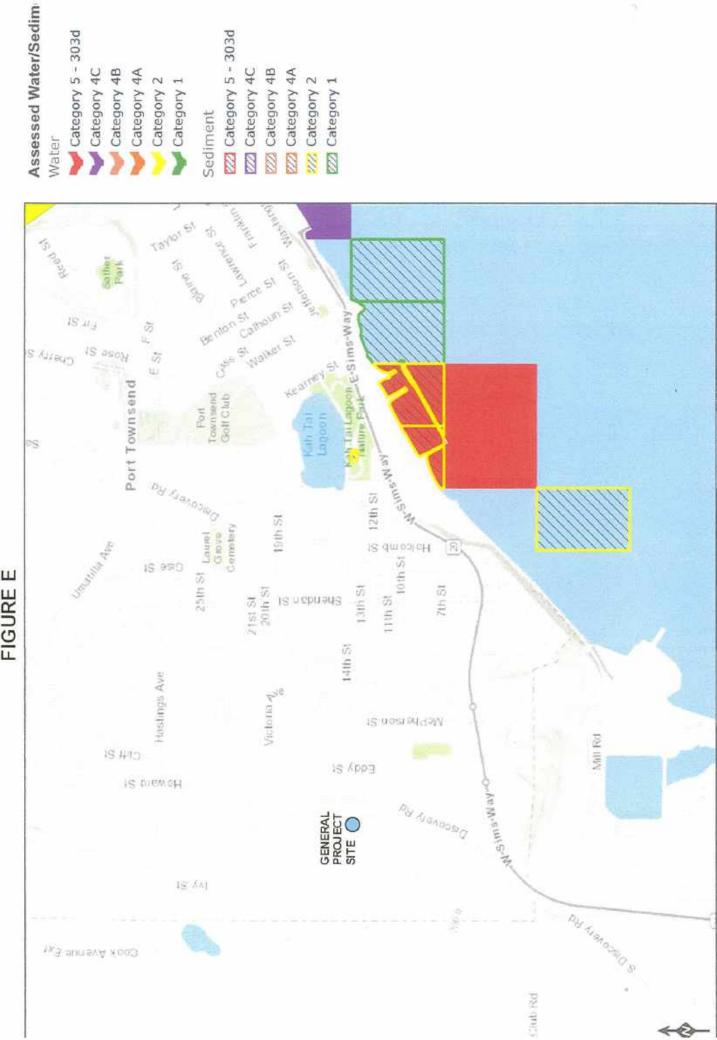
Miles

Category 5 - 303d Map FIGURE E

Category 4B Category 4A

Category 2

Category 1



RATING SUMMARY – Western Washington

Name of wetland (or ID #):	Wettand D	Date of site visit: 24 M ay 2021
W. David loggy Rated by Loggy Soil & Wetland	Consulting Tra	ined by Ecology? Yes <u>X</u> No Date of training 11/8-9/20, 2017
HGM Class used for rating_	DEPRESSION	Wetland has multiple HGM classes?Y_X_N
		ne figures requested (figures can be combined).
Source of base ae	rial photo/map Jeffe	erson County & Google Photos, USFW, DRN & WF&W maps

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
х	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	11 100 100 100	mpro ater Q	ving uality	Н	ydrol	ogic		Habita	it	
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	M	L	Н	M	L	Н	M	L	
Landscape Potential	Н	(1)	L	Н	M	L	H	M	L	
Value	Н	M	(1)	Н	M	1	Н	(M)	L	TOTAL
Score Based on Ratings		5			5			7		17

Score for each function based on three ratings (order of ratings is not important) 9 = H, H, H8 = H, H, M7 = H,H,L7 = H,M,M6 = H,M,L6 = M, M, M5 = H,L,L5 = M,M,L4 = M, L, L3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY		
Estuarine	I II		
Wetland of High Conservation Value	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	SEE NOTE
Hydroperiods	D 1.4, H 1.2	SEE NOTE
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 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)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	N/A

Riverine Wetlands NOTE: HERBAC

NOTE: HERBA CEOUS AND SHRUB WETLAND AREA COULD NOT BE SHOWN BECAUSE OF DENSE TREES COVER OVER THE WETLAND.

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	L1.1, L4.1, H1.1, H1.4	
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 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)	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

To answer questions:	Figure #
H 1.1, H 1.4	
H 1.2	
S 1.3	
S 4.1	
S 2.1, S 5.1	
H 2.1, H 2.2, H 2.3	
S 3.1, S 3.2	
S 3.3	
	H 1.1, H 1.4 H 1.2 S 1.3 S 4.1 S 2.1, S 5.1 H 2.1, H 2.2, H 2.3

NO - go to 5

stream or river.

deep).

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? NO - go to 2 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 NO - go to 3 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) NO - go to 4 4. Does the entire wetland unit meet all of the following criteria? x The wetland is on a slope (slope can be very gradual), x 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.

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

__The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that

5. Does the entire wetland unit meet all of the following criteria?

The overbank flooding occurs at least once every 2 years.

YES - The wetland class is Slope

Wetland name or number Wetland D

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

 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.

DEDDECCIONIAL AND FLATCIMETIANDS	The second secon	
DEPRESSIONAL AND FLATS WETLANDS		
Water Quality Functions - Indicators that the site functions to imp	rove 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 le Wetland has an intermittently flowing stream or ditch, OR highly constricted permanen Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing	points = 3 tly flowing outlet. points = 2 flowing points = 1	2
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS defin		4
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Fore Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed, plants > ½ of area Wetland has persistent, ungrazed plants > ½ of area Wetland has persistent, ungrazed plants < ½ of area Wetland has persistent, ungrazed plants < ½ of area	points = 5 points = 3 points = 1 points = 0	3
D 1.4. Characteristics of seasonal ponding or inundation: This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is < ½ total area of wetland	points = 4 points = 2 points = 0	0
Total for D 1 Add the poin	ts in the boxes above	9
Rating of Site Potential If score is:12-16 = H \times 0-5 = L Record D 2.0. Does the landscape have the potential to support the water quality function of	d the rating on the first pa the site?	ge
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	
		0
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.3. Are there septic systems within 250 ft of the wetland? D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions. Source	Matter Chie-195	1,070
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in ques	tions D 2.1-D 2.3?	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questource Total for D 2 Add the point	tions D 2.1-D 2.3? Yes = 1 No = 0	0 0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questource Total for D 2 Add the point	Yes = 1 No = 0	0 0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in quest Source Total for D 2 Add the point Rating of Landscape Potential If score is:3 or 4 = H1 or 2 = MX _0 = L	Yes = 1 No = 0 ts in the boxes above Record the rating on the fit	0 0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in quest Source Total for D 2 Add the point Rating of Landscape Potential If score is:3 or 4 = H1 or 2 = MX _0 = L	Yes = 1 No = 0 ts in the boxes above Record the rating on the fire water that is on the	0 0 0 est page
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in quest Source Total for D 2 Add the point Rating of Landscape Potential If score is:3 or 4 = H1 or 2 = MX _0 = L	Yes = 1 No = 0 ts in the boxes above Record the rating on the fire water that is on the Yes = 1 No = 0 Yes = 1 No = 0	0 0 0 est page
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions and the point of the	Yes = 1 No = 0 Its in the boxes above Record the rating on the fine water that is on the Yes = 1 No = 0 Yes = 1 No = 0 Its in the boxes above	0 0 0 sst page 0 0 0

DEPRESSIONAL AND FLATS V Hydrologic Functions - Indicators that the site functions to re	The state of the s
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 Wetland has an intermittently flowing stream or ditch, OR highly constr Wetland is a flat depression (QUESTION 7 on key), whose outlet is a perr Wetland has an unconstricted, or slightly constricted, surface outlet that	icted permanently flowing outletpoints = 2 nanently flowing ditch points = 1
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above with no outlet, measure from the surface of permanent water or if dry, the Marks of ponding are 3 ft or more above the surface or bottom of outlet Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet The wetland is a "headwater" wetland Wetland is flat but has small depressions on the surface that trap water Marks of ponding less than 0.5 ft (6 in)	ne deepest part. points = 7
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the recontributing surface water to the wetland to the area of the wetland unit. The area of the basin is less than 10 times the area of the unit. The area of the basin is 10 to 100 times the area of the unit. The area of the basin is more than 100 times the area of the unit. Entire wetland is in the Flats class.	
Total for D 4	Add the points in the boxes above 8
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 fund	tions 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 general	ate excess runoff? Yes = 1 No = 0 1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with >1 residence/ac, urban, commercial, agriculture, etc.)?	intensive human land uses (residential at Yes = 1 No = 0
Total for D 5	Add the points in the boxes above 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 soci	ety?
D 6.1. The unit is in a landscape that has flooding problems. Choose the descripthe wetland unit being rated. Do not add points. Choose the highest score the wetland captures surface water that would otherwise flow down-gradient damaged human or natural resources (e.g., houses or salmon redds): Flooding occurs in a sub-basin that is immediately down-gradient of Surface flooding problems are in a sub-basin farther down-gradient. Flooding from groundwater is an issue in the sub-basin.	re if more than one condition is met. adient into areas where flooding has unit. points = 2
The existing or potential outflow from the wetland is so constrained by h water stored by the wetland cannot reach areas that flood. Explain why 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 conve	eyance in a regional flood control plan? Yes = 2 No = 0
Total for D 6	Add the points in the boxes above 0
Rating of Value If score is:2-4 = H1 = MX 0 = L	Record the rating on the first page

Watland Dating Curtam for Wactorn WA. 2014 Undata

DEPRESSIONAL AND FLAT	The state of the s	
Hydrologic Functions - Indicators that the site functions to		on
D 4.0. Does the site have the potential to reduce flooding and erosio	on?	
D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water lead Wetland has an intermittently flowing stream or ditch, OR highly con Wetland is a flat depression (QUESTION 7 on key), whose outlet is a p Wetland has an unconstricted, or slightly constricted, surface outlet	nstricted permanently flowing outletpoints = 2 permanently flowing ditch points = 1	2
D 4.2. Depth of storage during wet periods: Estimate the height of ponding with no outlet, measure from the surface of permanent water or if dr Marks of ponding are 3 ft or more above the surface or bottom of ou Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet The wetland is a "headwater" wetland Wetland is flat but has small depressions on the surface that trap wa Marks of ponding less than 0.5 ft (6 in)	y, the deepest part. utlet	0
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the contributing surface water to the wetland to the area of the wetland. The area of the basin is less than 10 times the area of the unit. The area of the basin is 10 to 100 times the area of the unit. The area of the basin is more than 100 times the area of the unit. Entire wetland is in the Flats class.		3
Total for D 4	Add the points in the boxes above	8
Rating of Site Potential If score is:12-16 = HX_6-11 = M0-5 = I	L Record the rating on the J	first page
D 5.0. Does the landscape have the potential to support hydrologic f	functions of the site?	av ray
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 ger	nerate excess runoff? Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered w >1 residence/ac, urban, commercial, agriculture, etc.)?	rith intensive human land uses (residential at Yes = 1 No = 0	0
Total for D 5	Add the points in the boxes above	1
Rating of Landscape Potential If score is:3 = HX_1 or 2 = M0 =	= L Record the rating on the j	first page
D 6.0. Are the hydrologic functions provided by the site valuable to s	society?	Test I'v
D 6.1. The unit is in a landscape that has flooding problems. Choose the dest the wetland unit being rated. Do not add points. Choose the highest. The wetland captures surface water that would otherwise flow down damaged human or natural resources (e.g., houses or salmon redds). Flooding occurs in a sub-basin that is immediately down-gradien. Surface flooding problems are in a sub-basin farther down-gradien.	n-gradient into areas where flooding has to funit. points = 2	
Flooding from groundwater is an issue in the sub-basin.	points = 1	
The existing or potential outflow from the wetland is so constrained water stored by the wetland cannot reach areas that flood. Explain was		0
There are no problems with flooding downstream of the wetland.	points = 0	
D 6.2. Has the site been identified as important for flood storage or flood of	onveyance 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 = H1 = MX_0 = L	Record the rating on the j	first page

Watland Dating System for Wastern WA: 2014 Undate

These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of % 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 X Emergent 3 structures: points = 2 X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: X 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 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 (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 X Seasonally flooded or inundated 3 types present: points = 2 X 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 H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft2. 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 points = 2 1 5 - 19 species points = 1 < 5 species points = 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. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are HIGH = 3points

U.A.E. Canadal landitude fantaures		
H 1.5. Special habitat features: Check the habitat features that are present in the wetland. The number of chec Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft l	스타면 : 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging pla		
over a stream (or ditch) in, or contiguous with the wetland, for at least 33	1.77	
Stable steep banks of fine material that might be used by beaver or muskra slope) OR signs of recent beaver activity are present (cut shrubs or trees the	아이들 아이는 아이는 아이를 하는데 아이를 하는데 아이를 하는데 아이를 살아가지 않는데 살아 없다.	
where wood is exposed)		
X At least % ac of thin-stemmed persistent plants or woody branches are pre- permanently or seasonally inundated (structures for egg-laying by amphib		
X Invasive plants cover less than 25% of the wetland area in every stratum of		
strata)	plants (see H 1.1 for list of	4
High to Hotel Mark	the points in the boxes above	12
Rating of Site Potential If score is:15-18 = HX_7-14 = M0-6 = L	Record the rating on th	
H 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 38 + [(% moderate and low intensity	land uses)/2] 4 = 42 %	
If total accessible habitat is:		(9)
> 1/3 (33.3%) of 1 km Polygon	points = 3	3
20-33% of 1 km Polygon	points = 2	
10-19% of 1 km Polygon	points = 1	
< 10% of 1 km Polygon	points = 0	
2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate: % undisturbed habitat 75 + [(% moderate and low intensity	land uses)/2] 7 = 82 %	
Undisturbed habitat > 50% of Polygon	points = 3	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	points = 0	
2.3. Land use intensity in 1 km Polygon: If		200
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	0
≤ 50% of 1 km Polygon is high intensity	points = 0	
otal for H 2 Add	the points in the boxes above	5
tating of Landscape Potential If score is: X 4-6 = H1-3 = M<1 = L	Record the rating on the	e first page
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 anim It is mapped as a location for an individual WDFW priority species	nal on the state or federal lists)	
It is a Wetland of High Conservation Value as determined by the Departmen	nt of Natural Resources	
It has been categorized as an important habitat site in a local or regional co		
Shoreline Master Plan, or in a watershed plan	- numerous survivors (Programme) 表記 2000 (Programme)	
Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1	1
Site does not meet any of the criteria above	points = 0	
Rating of Value If score is:2 = HX1 = M0 = L	Record the rating on ti	he first par

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. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

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

[2]	Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
(11)	Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHSreport).
[2]	Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
/BX	Old-growth/Mature forests: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less, than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
77	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).
(22)	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.
(#)	Nearshore: 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.
[H]	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.
x/	Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft

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 Spartina, see page 25) At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	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 SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	Cat. I
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 1 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 YESyou 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 3.2 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 = is 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 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YESyou 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 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) 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). At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. The wetland is larger than 1/10 ac (4350 ft²)	Cat. I
Yes = Category I No = Category II	
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 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating	Cat I
6C 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No - Go to SC 6.2 SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. II
	Cat. III
Yes = Category II No - Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category II No = Category IV	