

Sewall Wetland Consulting, Inc.

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November 16, 2020

Sean Northrop FRPP Phase I LLC 116 ½ Washington Street Seattle, Washington 98104

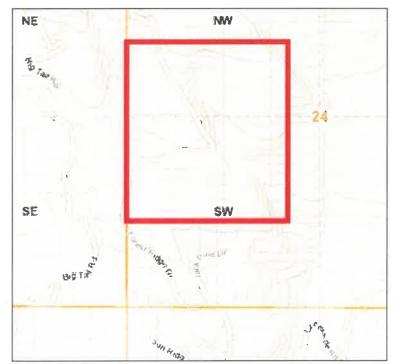
Critical Area Report - Creekside Road and Forest Ridge Drive RE: FRP Phase I

Kittitas County, Washington

SWC Job #20-171

Dear Sean,

This report describes our observations of any jurisdictional wetlands, streams and/or buffers on or within 200' of the proposed Forest Ridge Road Phase I project located within a portion Section 24, Township 20 North, Range 15 East of the W.M in Kittitas County, Washington.



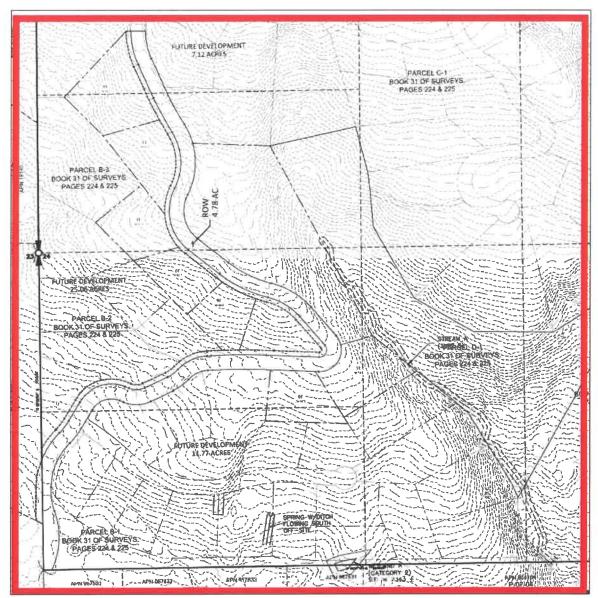
Kittitas Co. CDS

Above: Vicinity Map of site



Above: Aerial photograph of the study area from Kittitas Mapsifter website with wetland and DNR water type layers activated.

Specifically the site consists of Parcels #16034, # 22023, #22024,#173034, #203034, and portions of Parcels # 22025, #22026 & # 22027.



Above: The study area portion taken from the Encompass Engineering & Surveying site maps.

METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site and areas within 200' on November 11, 12, 13 and 24 of 2009. The site was revisited in November of 2020 to confirm that the characteristics of the critical areas observed had not changed.

The site was reviewed using methodology described in the **Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)** (USACOE September 2008) as required by the US Army Corps of Engineers starting in June of 2009. This is the methodology currently recognized by the Kittitas County for wetland determinations and delineations. The site was also reviewed using methodology described in Soil colors were identified using the 1990 Edited and Revised Edition of the **Munsell Soil Color Charts** (Kollmorgen Instruments Corp. 1990.

These wetlands on-site were rated using the Washington State Wetlands Rating System for Eastern Washington (Pub. #91-58) as required by Kittitas County.

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

OBSERVATIONS

Existing Site Documentation.

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

National Wetlands Inventory (NWI)

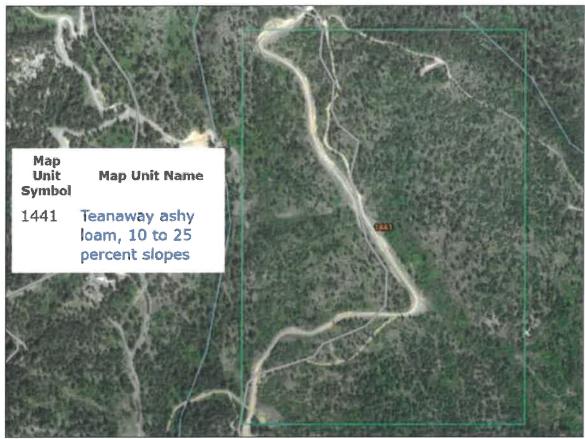
The NWI map depicts several streams crossing the site. No wetlands are depicted on the site.



Above: NWI map of the area of the site

Soil Survey

According to the NRCS Soil Mapper website, the site is mapped as entirely as Teanaway Ashy Loam 10%-25% slopes. This soils is a moderately well drained soil formed in loess over glacial till or outwash. Teanaway soils are not considered "hydric" or wetland soils according to the publication Hydric Soils of the United States (USDA NTCHS Pub No.1491, 1991).



Above: NRCS soil map of the site.

WADNR FPARS website

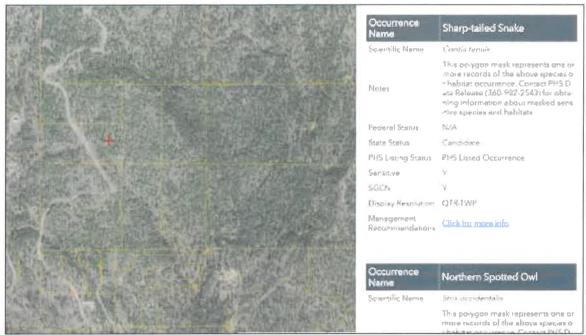
According to the WADNR FPARS website with stream types layers activated, there are portions of three (3) Type N streams passing through the site. These match the locations of the streams depicted on the NWI mapping as well as the County Mapping of Type 4 waters.



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

WDFW Priority Habitats and Species Maps

The WDFW Priority Habitats and Species mapping for the site depicts the site located within a Township that contains possible habitat for the Northern Spotted Owl, as well as potential habitat for sharp tailed snakes.



Above: WDFW Priority Habitat Mapping of the site (entire Township which site is part of has a light shading indicating these species).

Field observations

The site consists of a south sloping forested hillside covered with immature ponderosa pine and douglas fir with scattered cottonwoods. An existing road (partially paved and partially gravel) known as Forest Ridge Road passes through the site. The site has defined ravines with small seasonal streams flowing through them. The site was logged approximately 20 years ago and has had some past mining activity in the form of small prospect holes scattered throughout the site.

In addition to the trees noted above, understory species include clustered rose, snowberry, oceanspray, Oregon grape, kinnikinic, vine maple, bracken fern, knapweed and scattered clumps of quackgrass. Piles of old slash from past logging activities are found throughout the site.

Soils throughout the majority of the site consist of gravelly loams with soil colors of 10YR3/3-3/4 with no hydric soil indicators or evidence of wetland hydrology.

Wetlands

There are two small wetland areas that were identified on the site on the southern boundary east of the existing road. Below is a description of these wetlands;

Wetland A

Wetland A is a 2,343sf isolated scrub-shrub wetland located in a small depression. This wetland was flagged with pink flagging labeled A1-A5. Vegetation noted within this wetland includes willow, hardhack, and an unidentified sedge (Carex spp.).

Soil pits excavated within this wetland area revealed a clay loam with a color of 10YR 2/1 with few, fine, faint, redoximorphic concentrations. Soils saturated at the surface during our non-growing season observation of the wetland.

Wetland A was rated using the Washington State Wetlands Rating System for Eastern Washington (Pub. #91-58) as required by Kittitas County. Using this system Wetland A rates as a Category III wetland, with Wetland A receiving 15 overall points.

According to Kittitas Municipal Code Chapter 17A.04.020, Category III wetlands >10,000sf in size have a 20'-80' buffer. Wetland A is < 10,000sf and would therefore not have any prescribed buffer.

Wetland B

Wetland B is a small scrub shrub wetland (Flags B1-B4) located approximately 200' northwest of Wetland A. This wetland is similar to Wetland A in that it is a very small (approximately 500sf) isolated depression covered with shrubs such as willow, rose, and sedge.

Soil pits excavated within this wetland area revealed a clay loam with a color of 10YR 2/1 with few, fine, faint, redoximorphic concentrations. Soils saturated at the surface during our non-growing season observation of the wetland.

Wetland B was rated using the Washington State Wetlands Rating System for Eastern Washington (Pub. #91-58) as required by Kittitas County. Using this system Wetland A rates as a Category III wetland, with Wetland B receiving 15 overall points.

According to Kittitas Municipal Code Chapter 17A.04.020, Category III wetlands >10,000sf in size have a 20'-80' buffer. Wetland B is < 10,000sf and would therefore not have any prescribed buffer.

Streams A & B

Stream A originates near the north-central of the site to the east of Forest Ridge Road in a well defined ravine. This channel is approximately 12" wide and is surrounded by a mix of vine maple, hazelnut, willows and snowberry. The channel appears to flow only during snow melt in the spring and flows over some areas of exposed sandstone bedrock. No water was observed in the channel during our site visits but is assumed to flow in the spring during snow melt.

Stream B is similar in character to wetland A and is also 12"-24" in width and had no flow during our site visits.

WADNR has mapped these streams as a Type N water which appears appropriate as the channel is <3' in width and flows down areas exceeding 16% slope which would preclude any fish migration into this small drainage.

Streams A & B on-site meets the criteria of a Type 4 water due to lack of fish sue and channel width below 2'. This equates to a Type N water in the new stream typing system. According to KCMC 17A.07.010, Type 4 waters have a "10-20 feet from the intersection with a Type 1, 2 or 3 water for a distance of 40 to 500 feet. From the point at which the buffer ends (40 - 500 feet upstream from the confluence), there shall be a 15-foot structural setback from the ordinary high water mark."

These streams appear to be over 500' from the intersection with the Type 3/F water and therefore would have the 15' structural setback.

Stream C

Stream C originates near the northwest corner of the site near Forest Ridge Road, and is a very small seasonal drainage approximately 12" in width. The feature is very poorly defined and may not flow at all during

some years depending on the amount and intensity of snow melt. We never observed any flow in this poorly defined channel.

WADNR has mapped this stream as a Type N water which appears appropriate as the channel is <3' in width and flows down areas exceeding 16% slope which would preclude any fish migration into this small drainage.

Stream C on-site meets the criteria of a Type 4 water due to lack of fish sue and channel width below 2'. This equates to a Type N water in the new stream typing system. According to KCMC 17A.07.010, Type 4 waters have a "10-20 feet from the intersection with a Type 1, 2 or 3 water for a distance of 40 to 500 feet. From the point at which the buffer ends (40 - 500 feet upstream from the confluence), there shall be a 15-foot structural setback from the ordinary high water mark."

This segment of Stream C appears to be over 500' from the intersection with the Type 3/F water and therefore would have the 15' structural setback.

Proposed Project

No impacts to wetlands streams or buffers are proposed.

If you have any questions in regards to this report or need additional information, please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com.

Sincerely,

Sewall Wetland Consulting, Inc.

Il Sent!

Ed Sewall

Senior Wetlands Ecologist PWS #212

Attached: Data sheets & Rating Forms

Site Maps

REFERENCES

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

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

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

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

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Forest /	Zidge Phase	I	City/County	. K	thas	Sampling Date:
Applicant/Owner:						Sampling Point: DP]
Investigator(s): Ed 5	eml		Section To	washin Ra	nge: 5247	ZON RISE
Landform (hillslope, terrace, etc.):						
Subregion (LRR):	Carama 21	It las	~		MAI classifica	ation:
Are climatic / hydrologic conditions on t						
· · · · ·		_				
Are Vegetation, Soit, or Are Vegetation, Soil, or					•	esent? Yes No
SUMMARY OF FINDINGS - A						
Hydrophytic Vegetation Present? Hydric Soil Present?	103	3	1	e Sampled	_	No
Wetland Hydrology Present? Remarks:	Yes No	·				
VEGETATION						
The Charles die all 185 and 185	`	Absolute	Dominant Species?		Dominance Test works	heet:
Tree Stratum (Use scientific names. 1	•		Species?		Number of Dominant Sp That Are OBL, FACW, or	
2.						
3.					Total Number of Domina Species Across All Strati	
4	Total Cover:				Percent of Dominant Spe	
Sapling/Shrub Stratum				E 1	That Are OBL, FACW, or	
1. Salix sitchery		25		FACUS	Prevalence Index work	
2. Epiren deug la	1511	70		FACE		Multiply by:
						x1=
4						x 2 =
5	Total Cover					x 4 =
Herb Stratum				►.		x5=
1. CVCK SPA		46		FAIN		(A) (B)
2						
3						= B/A =
4.					Hydrophytic Vegetation Dominance Test is >	
5					Prevalence Index is	
6						tations (Provide supporting
7 8.					data in Remarks	or on a separate sheet)
	Total Cover				Problematic Hydroph	nytic Vegetation (Explain)
Woody Vine Stratum 1					¹ Indicators of hydric soil a	and wetland hydrology must
2.					be present.	
	Total Cover				Hydrophytic Vegetation	
% Bare Ground in Herb Stratum	% Cover	of Biotic C	rust		Present? Yes	No
Remarks:						

Sampling Point: D1 1

Profile Description: (Describe to the depl	n nescea to accument the indicator or co	minn the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type Lo	
16 1042/	Few For Fort	sily chy ha
-		
		-
¹ Type: C=Concentration, D≖Depletion, RM=		ng, RC=Root Channel, M=Matrix.
Hydric Soil Indicators: (Applicable to all I	·	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Red Parent Material (TF2) Other (Explain in Remarks)
Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	Outer (Explain at Remarks)
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12)	Redox Depressions (F8)	
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	³ Indicators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)		wetland hydrology must be present.
Restrictive Layer (if present):		
Туре:		
Depth (inches):		Hydric Soil Present? Yes No
Remarks:		
HYDROLOGY		
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Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficed by the suffic	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Cxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Sci Other (Explain in Remarks) o Depth (inches): Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficed by the suffic	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Cxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Sci Other (Explain in Remarks) o Depth (inches): Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficed by the suffic	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Cxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Sci Other (Explain in Remarks) o Depth (inches): Depth (inches):	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aeriel Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No

up had new west

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Farest /	Zidec Phase	I	City/County	K	thatas	Sampling Date:	11-4-0
Applicant/Owner:					State: WA		
Investigator(s): £2 5	eml		Section. To	woship. Ra	nge: 5247	ZON FI	5E
Landform (hillslope, terrace, etc.):							
Subregion (LRR):	Earner 311	It low	_		NWI classifi	cation:	
Are climatic / hydrologic conditions on t							
Are Vegetation, Soil, or							No
Are Vegetation, Soil, or							
SUMMARY OF FINDINGS - A							atures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No			e Sampleo In a Wetlar		No	
Remarks:							
VEGETATION							
Tree Stratum (Use scientific names.		Absolute % Cover	Dominant Species?		Dominance Test work	_	
1. Pirus padrase					Number of Dominant S That Are OBL, FACW,		, (A)
2.					Total Number of Domi	nant	
3					Species Across All Str		(B)
4.	Total Cover:				Percent of Dominant S That Are OBL, FACW,	pecies or FAC:	(A/B)
1. 3 raphromy s 2. Curilus carnet	21600	30		FALL	Prevalence Index wo	rksheet:	
2 Curiles cornet		2.4		FALL	Total % Cover of:	Multiply	/by:
3					OBL species		
4					FACW species		
5					FAC species		
Herb Stratum	Total Cover:				FACU species		
1					Column Totals:		
2							_
3						c = B/A =	
1,					Hydrophytic Vegetati Dominance Test is		
5					Prevalence Index		
6 7	1341 T - Y				Morphological Ada		supporting
8	Total Cover:				Problematic Hydro		
Woody Vine Stratum 1					¹ Indicators of hydric so be present.	ii and wetland hydro	sogy must
2	Total Cover:				Hydrophytic Vegetation		
% Bare Ground in Herb Stratum	% Cover	of Bliatic Cr	ust		Present? Ye	*No	
Remarks:							

Sampling	Point:	

			172-17					
Depth (Inches)	Matrix Color (moist)	% C	olor (moist)	K Features	Type	Lpc ²	Texture	Remarks
10	101K313				-		1 mm	
- 6	المارات المارات							
						-		
	oncentration, D=Deple					Lining, R	C=Root Chann	
	indicators: (Applica	bis to all LRRs			1.)			for Problematic Hydric Solis ³ :
Histosol		-	_ Sandy Redo					uck (A9) (LRR C)
Hestic Ep Black His	oipedon (A2)	_	Stripped Ma Loamy Muci		E41		_	uck (A10) (LRR B) ed Vertic (F18)
	n Sulfide (A4)	_	Loamy Gley	•	-			rent Material (TF2)
	Layers (A5) (LRR C)	, –	Depleted Ma		-,			Explain in Remarks)
	ck (A9) (LRR D)		_ Redox Dark		6)		_ ,	
_	Below Dark Surface	(A11)	Depleted Da					
	rk Surface (A12)	_	_ Redox Depr	-	3)		Since the	Photosoph Managember 1
	lucky Mineral (81)	-	_ Vernal Pools	(F9)				of hydrophytic vegetation and
	leyed Matrix (S4) _ayer (If present):						wenting i	hydrology must be present.
	-ela fir brassir):							/
Type:	shart.						Hydric Soli	Present? Yes No
Depth (inc	A149).						I I TO THE TOTAL	1 war 191 1 was assessment 1900
rtematas,								1
					N	0 1	roll on	25
								24.65
HYDROLO	GY							
_	trology Indicators:						Pacco	dan , builtanian (6) an annu an aire an
Primary Indic	ators (any one indica	A series and the series as						dary indicators (2 or more required)
Surface !		(or 18 sumcient)					w	ater Marks (B1) (Riverine)
	Water (A1)	CO 18 SUMCIONS	Salt Crust (w	ater Marks (B1) (Riverine) adment Deposits (B2) (Riverine)
High War	iter Table (A2)	ior is sumciene	Salt Crust (Biotic Crus	t (B12)			W Se Dr	ater Marks (B1) (Riverine) edment Deposits (B2) (Riverine) fit Deposits (B3) (Riverine)
High War	iter Table (A2) on (A3)		Salt Crust (Biotic Crus Aquatic Inv	t (B12) vertebrates			W Se Dr	ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) fit Deposits (B3) (Riverine) ainage Patterns (B10)
High Wa Saturatio	iter Table (A2) on (A3) larks (B1) (Nonriverin	16)	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I	t (B12) vertebrates Sulfide Odd	r (C1)	hine Day	W St Dr Dr	ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) fit Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2)
High Wa Saturation Water Ma	iter Table (A2) on (A3) larks (B1) (Nonriverin it Deposits (B2) (Noni	ne) riverine)	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R	t (B12) vertebrates Sulfide Odd hizosphere	r (C1) is along 1		W Dr Dr ts (C3) Th	ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) fit Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7)
High Wa Saturatio Water M Sedimen Drift Dep	iter Table (AZ) on (A3) larks (B1) (Nonriverir it Deposits (B2) (Nonriverir oosits (B3) (Nonriveri	ne) riverine)	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence (t (B12) vertebrates Sulfide Odd hizosphere of Reduced	r (C1) is along t iron (C4)	W Se Dr Dr Dr Dr Dr Dr Cr	ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) fit Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8)
High Wa Saturatio Water M Sedimen Drift Dep Surface:	iter Table (AZ) on (A3) larks (B1) (Nonriverin it Deposits (B2) (Nonriveri sosits (B3) (Nonriveri Soll Cracks (B6)	ne) riverine) ne)	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iron	t (B12) rertebrates Sulfide Odd hizosphere of Reduced in Reduction	er (C1) es along 1 Iron (C4 n in Plow)	W Se Dr Dr Dr Dr Dr CG3) Th CG	ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) fit Deposits (B3) (Riverine) winage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) wyfish Burrows (C8) duration Visible on Aerial Imagery (C9)
High War Saturation Water M Sedimen Drift Dep Surface:	nter Table (AZ) on (A3) on (A3	ne) riverine) ne)	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence (t (B12) rertebrates Sulfide Odd hizosphere of Reduced in Reduction	er (C1) es along 1 Iron (C4 n in Plow)		ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) fit Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8)
High War Saturation Water M Sedimen Drift Dep Surface: Inundation Water-St	nter Table (AZ) on (A3) on (B1) (Nonriverir on (B3) (Nonriverir on (B4) on Visible on Aerial in tained Leaves (B9)	ne) riverine) ne)	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iron	t (B12) rertebrates Sulfide Odd hizosphere of Reduced in Reduction	er (C1) es along 1 Iron (C4 n in Plow)		ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) fit Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) sturation Visible on Aerial Imagery (C9) sellow Aquitand (D3)
High Water M Saturation Water M Sedimen Drift Dep Surface: inundation Water-Si Field Observ	ter Table (AZ) on (A3) on (A3) on (A3) on (A3) on (A3) on (A3) on (B1) (Nonrivering (B2) (Nonrivering (B3) (Nonrivering (B3) on Visible on Aerial intrained Leaves (B9) valions:	ne) riverine) ne) negery (87)	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iron Other (Exp	t (B12) rertebrates Sulfide Odd hizosphere of Reduction hain in Rem	er (C1) es along 1 Iron (C4 n in Plow)		ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) fit Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) sturation Visible on Aerial Imagery (C9) sellow Aquitand (D3)
High Wat Saturation Water Machiner Sedimen Drift Dep Surface Inundation Water-Si Field Observ Surface Water	ter Table (AZ) on (A3) larks (B1) (Nonriverir at Deposits (B2) (Nonriverir boosits (B3) (Nonriverir Soil Cracks (B8) on Visible on Aerial in tained Leaves (B9) wations: er Present? Ye	ne) riverine) ne) negery (87) s No	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence c Recent Iror Other (Exp	t (B12) reftebrates Sulfide Odd hizosphere of Reduced n Reduction lain in Rem	or (C1) is along t iron (C4 in Plow marks))		ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) fit Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8) sturation Visible on Aerial Imagery (C9) sellow Aquitand (D3)
High Water Mater Mater Mater Mater Mater Surface inundation Water-Street Surface Water Table	ter Table (AZ) on (A3) larks (B1) (Nonriverin to Deposits (B2) (Nonriverin sosits (B3) (Nonriverin Soil Cracks (B8) on Visible on Aerial in tained Leaves (B9) vailons: or Present? Ye Present? Ye	ne) riverine) ne) negery (87) s No*	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iror Other (Exp	t (B12) rertebrates Sulfide Odd rhizosphere of Reduced on Reduction lain in Rem thes):	or (C1) is along t iron (C4 in in Plow iarks)) ed Solis (C		ater Marks (B1) (Riverine) adment Deposits (B2) (Riverine) att Deposits (B3) (Riverine) atnage Patterns (B10) y-Season Water Table (C2) atn Muck Surface (C7) ayrish Burrows (C8) attration Visible on Aerial Imagery (C9) adilow Aquitard (D3) aC-Neutral Test (D5)
High War Saturatio Water M Sedimen Drift Dep Surface: Inundatik Water-St Field Observ Surface Water Water Table I Saturation P	ter Table (AZ) on (A3) arks (B1) (Nonriverir at Deposits (B2) (Nonriverir solits (B3) (Nonriverir Soli Cracks (B6) on Visible on Aerial in tained Leaves (B9) vertions: er Present? Ye resent? Ye resent? Ye resent?	ne) riverine) ne) s No s No s No	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iror Other (Exp Depth (inc	t (B12) rertebrates Sulfide Odd rhizosphere of Reduced n Reduction lain in Rem rhes):	or (C1) is along to licon (C4) in Plow marks)) ed Solfs (C	W Se	ater Marks (B1) (Riverine) adment Deposits (B2) (Riverine) att Deposits (B3) (Riverine) atnage Patterns (B10) y-Season Water Table (C2) atn Muck Surface (C7) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) adiow Aquitand (D3) aC-Neutral Test (D5)
High War Saturatio Water M Sedimen Drift Dep Surface: Inundatik Water-St Field Observ Surface Water Water Table I Saturation P	ter Table (AZ) on (A3) larks (B1) (Nonriverin to Deposits (B2) (Nonriverin sosits (B3) (Nonriverin sosits (B3) (Nonriverin sosits (B3) (Nonriverin soli Cracks (B3) on Visible on Aerial in tained Leaves (B3) valions: or Present? Yesent? Yesent?	ne) riverine) ne) s No s No s No	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iror Other (Exp Depth (inc	t (B12) rertebrates Sulfide Odd rhizosphere of Reduced n Reduction lain in Rem rhes):	or (C1) is along to licon (C4) in Plow marks)) ed Solfs (C	W Se	ater Marks (B1) (Riverine) adment Deposits (B2) (Riverine) att Deposits (B3) (Riverine) atnage Patterns (B10) y-Season Water Table (C2) atn Muck Surface (C7) ayrish Burrows (C8) aturation Visible on Aerial Imagery (C9) adilow Aquitard (D3) aC-Neutral Test (D5)
High War Saturatio Water M Sedimen Drift Dep Surface: Inundatik Water-St Field Observ Surface Water Water Table I Saturation P	ter Table (AZ) on (A3) arks (B1) (Nonriverir at Deposits (B2) (Nonriverir solits (B3) (Nonriverir Soli Cracks (B6) on Visible on Aerial in tained Leaves (B9) vertions: er Present? Ye resent? Ye resent? Ye resent?	ne) riverine) ne) s No s No s No	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iror Other (Exp Depth (inc	t (B12) rertebrates Sulfide Odd rhizosphere of Reduced n Reduction lain in Rem rhes):	or (C1) is along to licon (C4) in Plow marks)) ed Solfs (C	W Se	ater Marks (B1) (Riverine) adment Deposits (B2) (Riverine) att Deposits (B3) (Riverine) atnage Patterns (B10) y-Season Water Table (C2) atn Muck Surface (C7) ayrish Burrows (C8) aturation Visible on Aerial Imagery (C9) adilow Aquitard (D3) aC-Neutral Test (D5)
High War Saturatio Water M Sedimen Drift Dep Surface: Inundatik Water-St Field Observ Surface Water Water Table I Saturation P	ter Table (AZ) on (A3) arks (B1) (Nonriverir at Deposits (B2) (Nonriverir solits (B3) (Nonriverir Soli Cracks (B6) on Visible on Aerial in tained Leaves (B9) vertions: er Present? Ye resent? Ye resent? Ye resent?	ne) riverine) ne) s No s No s No	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iror Other (Exp Depth (inc	t (B12) rertebrates Sulfide Odd rhizosphere of Reduced n Reduction lain in Rem rhes):	r (C1) s along t fron (C4 in Plow marks)) ed Solis (C	W Se	ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) whape Patterns (B10) by-Season Water Table (C2) in Muck Surface (C7) wyfish Burrows (C8) ituration Visible on Aerial Imagery (C9) wallow Aquitand (D3) iC-Neutral Test (D5) Present? Yes No
High Water Mater Mater Mater Mater Surface inundation Water Stringer Water Table Saturation Projection Records	ter Table (AZ) on (A3) arks (B1) (Nonriverir at Deposits (B2) (Nonriverir solits (B3) (Nonriverir Soli Cracks (B6) on Visible on Aerial in tained Leaves (B9) vertions: er Present? Ye resent? Ye resent? Ye resent?	ne) riverine) ne) s No s No s No	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iror Other (Exp Depth (inc	t (B12) rertebrates Sulfide Odd rhizosphere of Reduced n Reduction lain in Rem rhes):	r (C1) s along t fron (C4 in Plow marks)) ed Solis (C	W Se	ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) whape Patterns (B10) by-Season Water Table (C2) in Muck Surface (C7) wyfish Burrows (C8) ituration Visible on Aerial Imagery (C9) wallow Aquitand (D3) iC-Neutral Test (D5) Present? Yes No
High Water Mater Mater Mater Mater Surface inundation Water Stringer Water Table Saturation Projection Records	ter Table (AZ) on (A3) arks (B1) (Nonriverir at Deposits (B2) (Nonriverir solits (B3) (Nonriverir Soli Cracks (B6) on Visible on Aerial in tained Leaves (B9) vertions: er Present? Ye resent? Ye resent? Ye resent?	ne) riverine) ne) s No s No s No	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iror Other (Exp Depth (inc	t (B12) rertebrates Sulfide Odd rhizosphere of Reduced n Reduction lain in Rem rhes):	r (C1) s along t fron (C4 in Plow marks)) ed Solis (C	W Se	ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) whape Patterns (B10) by-Season Water Table (C2) in Muck Surface (C7) wyfish Burrows (C8) ituration Visible on Aerial Imagery (C9) wallow Aquitand (D3) iC-Neutral Test (D5) Present? Yes No
High Water Mater Mater Mater Mater Mater Surface inundation Water Strate Water Table Saturation Projection Records Rec	ter Table (AZ) on (A3) arks (B1) (Nonriverir at Deposits (B2) (Nonriverir solits (B3) (Nonriverir Soli Cracks (B6) on Visible on Aerial in tained Leaves (B9) vertions: er Present? Ye resent? Ye resent? Ye resent?	ne) riverine) ne) s No s No s No	Salt Crust (Biotic Crus Aquatic Inv Hydrogen I Oxidized R Presence of Recent Iror Other (Exp Depth (inc	t (B12) rertebrates Sulfide Odd rhizosphere of Reduced n Reduction lain in Rem rhes):	r (C1) s along t fron (C4 in Plow marks)) ed Solis (C	W Se	ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) whape Patterns (B10) by-Season Water Table (C2) in Muck Surface (C7) wyfish Burrows (C8) ituration Visible on Aerial Imagery (C9) wallow Aquitand (D3) iC-Neutral Test (D5) Present? Yes No

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Forest Robge Phosp Applicant/Owner: Investigator(s): Ed Semul	L.F.	City/County	K.	thitas Sampling Date: 11-4-
Applicant/Owner:		_		State: WA Sampling Point: P
Investigator(s): Ed Seml		Section, To	wnship, Ra	nge: SZYTZON RISE
Landform (hillslope, terrace, etc.): 4///6/				
Subregion (LRR):	At low	~		NWI classification:
Are climatic / hydrologic conditions on the site typical for th				
Are Vegetation, Soil, or Hydrology				
Are Vegetation, Soil, or Hydrology	-			seded, expiain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map				
Hydrophytic Vegetation Present? Hydric Soil Present? Yes Yes	No	1	• Sampled	1 Area
Wetland Hydrology Present? Yes	No	William	in a vietiar	nu? YesNO
VEGETATION Tree Stratum (Use scientific names.)		Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
3				Total Number of Dominant Species Across All Strate: (B)
Casting/Ohmile Olymbure	ec			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B
1. Posa pisocapa	30		FAL	Prevalence index worksheet:
1. Pos placepa 2. Salin 5-taling	20		FACIL	Total % Cover of: Multiply by:
3				OBL species x 1 =
4				FACW species X2=
5				FACU species x 3 = FACU species x 4 =
Harb Strokum	or:			HDI cooden
1. Come 300	20		FHLW	Column Totels: (A) (B)
2				
3,				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators: Dominance Test is >50%
5				Prevalence index is ≤3.01
6				Morphological Adaptations1 (Provide supporting
8.				data in Remarks or on a separate sheet)
	er:			Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum 1				¹ Indicators of hydric soil and wetland hydrology must be present.
2				
	er of Biotic Ci	,		Hydrophytic Vegetation Present? Yes No
Remarks:				1)

Sampling Point:	P	P	サン	7
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SOIL

Depth	Matrix	Redox F	eatures			
inches)	Color (moist) %	Color (moist)	% Type	Loc2	Texture	Remarks
14	1012 Z11	Acu Fin	Ful		tom	
			, ,,,			
				_		
		vania de la companya				
					0.0	
	ncentration, D=Depletion, RM		ocation: PL=Por	tining, RC=	Root Chann	el, M=Matrix.
raric Soil h	ndicators: (Applicable to all	LRRs, unless otherwi	se noted.)		Indicators !	for Problematic Hydric Solis ³ :
Histosol ((A1)	Sandy Redox (S5)		1 cm M	uck (A9) (LRR C)
Histic Ed	pedan (A2)	Stripped Matrix	(S6)		2 cm M	uck (A10) (LRR B)
Black His		Loemy Mucky I			Reduce	ed Vertic (F18)
	Sulfide (M)	Loamy Gleyed				rent Material (TF2)
		Depleted Matri				Explain in Remarks)
	Layers (A5) (LRR C)				Quan (i	rebanic in Decimina)
•	x (A9) (LRR D)	Redox Dark Su				
	Below Dark Surface (A11)	Depleted Dark				
	rk Surface (A12)	Redox Depress			9	
Sandy M	ucky Mineral (S1)	Vernal Pools (F	F9)			of hydrophytic vegetation and
	eyed Matrix (S4)				welland i	hydrology must be present.
strictive L	ayer (if present):					
Type:						
Type: Depth (incl	hes);			١,	Hydric Soli i	Present? Yes No
Depth (inc	hes);			1	Hydric Soli I	Present? Yes No
Depth (incomeries;					Hydric Soli I	Present? Yes No
Depth (incomarks;	3Y],		
Depth (inclinates: DROLOG	3Y rology Indicators:				Secon	dery indicators (2 or more required)
Depth (inclinates) DROLOG	3Y			1	Secon	
Depth (incomerks; DROLOG trand Hydrary India	3Y rology Indicators:	iclent)	11)		Secon	dery indicators (2 or more required)
Depth (incomerks; DROLOG trand Hydrograph indicates)	3Y rology Indicators: ators (any one indicator is suffi				W 	dery indicators (2.or mere required) ater Marks (B1) (Riverine)
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WETLANDS RATING FIELD DATA FORM	
BACKGROUND INFORMATION:	
Name of Rater: Ed Sent Affiliation: Senal wetal Cos Da	te: 11/09
Name of wetland (if known): Wetland A - Forest Ru	oc
Government Jurisdiction of wetland:	
Location: 1/4 S: of 1/4 S: SEC: TWNSHP: RNGE	3:
SOURCES OF INFORMATION: (Check all sources that apply)	
Site visit: USGS Topo Map: NWI map: Aerial Photo: Soils	survey:
Other: Describe:	
WHEN THE FIELD DATA FORM IS COMPLETE ENTER CATEGORY HERE:	
Q.1. High Ouality Natural Heritage Wetland.	Circle answers:
Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR.	
la. Is there significant evidence of human-caused changes to topography or hydrology of the wetland? Significant changes could include clearing, grading, filling, logging of the wetland or its immediate buffer, or culverts, ditches, dredging, diking or drainage of the wetland. Briefly describe the changes and your information source/s:	Yes: go to Q.3. No: go to 1b.
1b. Are there populations of non-native plants which are currently present and appear to be invading native populations? Briefly describe any non-native plant populations and information source(s):	Yes: go to Q.3. No: go to 1c.
1c. Is there significant evidence of human-caused disturbance of the water quality of the system? Degradation of water quality could be evidenced by culverts entering the system, direct road/parking lot runoff, evidence of historic dumping of wastes, oily sheens, extreme eutrophic conditions, livestock use or dead fish etc. Briefly describe:	Yes: go to Q.3. No: <u>Possible</u> <u>Category I</u>

Q.2. Regionally Rare Native Wetland Communities	
The Department of Ecology is developing a methodology for regionally rare native wetland communities. It is not yet available for use.	
Q.3. Irreplaceable Ecological Functions:	
Does the wetland:	No to both: go to Q.4.
- have at a least 1/2 acre of contiguous peat wetland;	Yes: go to 3a.
- or, have a forested class greater than 1 acre;	Yes: go to 3b.
Q.3a. Peat Wetlands.	
3a1. Does at least 1/2 acre of the contiguous peat wetland have < 25% areal cover of any combination of species from the list of invasive/exotic species on p.19, and have < 80% areal cover of Spirea douglasii?	Yes: Category I No: go to Q.4.
Q.3b. Mature forested wetland.	
3b1. Is the average age of dominant trees in the forested wetland > 80 years?	Yes: Category I No: go to 3b2.
3b2. Is the average age of dominant trees in the forested wetland 50-80 years, <u>and</u> is the structural diversity high as characterized by a multi-layer community of trees > 50' tall <u>and</u> trees 20'-49' tall <u>and</u> shrubs <u>and</u> herbaceous groundcover?	Yes: go to 3b3. No: go to Q.5.
3b3. Is > 50% (areal cover) of the dominant plants in one or more layers (canopy, young trees, shrubs, herbs) invasive/exotic plant species from the p.19 list?	Yes: go to Q.5. No: Category l
Q.4. Category IV wetlands	
4.1. Is the wetland: less than 1 acre and, hydrologically isolated and, comprised of one vegetated class that is dominated (> 80% areal cover) by one species from the list in guidance p.18	Yes: Category IV No: go to 4.2
4.2. Is the wetland: less than two acres and, hydrologically isolated, with one vegetated class, and > 90% of areal cover is any combination of species from the list in guidance p.19	Yes: Category IV No: go to Q.5.

O. C. Charles and habitat arrives. Answer all questions and anten de	An engage de d	Circle scores
O.5. Significant habitat value. Answer all questions and enter data requested.		
		that qualify
5a. <u>Total wetland area</u>	acres	
	> 20.00	Yes=6
Estimate area, select from choices in the near-right column, and so		Yes=5
in the far column:	5 - 9.99	Yes=4
	1 - 4.99	Yes=3
Enter acreage of wetland here: 0.0 acres, and source:	0.1 - 0.99	Yes=2
	<0.1	Yes=1
5b. Wetland classes: Circle the wetland classes below that quality	fv:	
Jo. Welland Classes. Chere the Welland Classes below that quant	.9.	1
Open Water: if the area of open water is > 1/2 acre or > 10% of the	e total wetland	
area. Source:		
	_	
Aquatic Beds: if the area of aquatic beds > 10% of the open water	area <u>or</u> > 1/2 acre.	
	4-4-1	
Emergent: if the area of emergent class is > 1/2 acre or > 10% of the	ne total wetland	
area.		
		1
Scrub-Shrub: if the area of scrub-shrub class is > 1/2 acre or > 10%	of the total wetland	
area.		
Forested: if area of forested class is > 1/2 acre or > 10% of the total	al wetland area.	
TOTAL		
Add the number of wetland classes, above, that qualify, and	# of classes	
then score according to the columns at right.	1	Yes =1
then score according to the columns at right.	2	Yes =3
You have and disease (a quette hade onen victor emercent for	3	Yes =5
e.g. If there are 4 classes (aquatic beds, open water, emergent &	4	Yes =8
scrub-shrub), you would circle 8 points in the far right column.		Yes =11
	5	165=11
F Di	# of	
5c. Plant species diversity.	1)	
m n n n n n n n n n n n n n n n n n n n	Class species Aquatic Bed 1-2	Yes=1
For all wetland classes (at right) that qualify in 5b. above, count		
the number of different plant species you can find. You do not	" " 3	Yes=2
have to name them.	" " >3	Yes=3
Coons in column at fau richt:	Emergent 1-2	Yes=1
Score in column at far right:		Yes=2
	" 3-4	
e.g. If a wetland has an aquatic bed class with 3 species, an	" >4	Yes=3
emergent class with 4 species and a scrub-shrub class with 2		l., , l
species you would circle 2, 2, and 1 in the far column.	Scrub-Shrub 1-2	Yes=1
' '		Yes=2
	" > 4	Yes=3
	Forested 1	Yes=1
		Yes=2
	" > 2	Yes=3

Answer questions below, circle features that apply, and score to right: Is there evidence of current use by beavers? Is a heron rookery located within 300'? Are raptor nest/s located within 300'? Are there at least 3 standing dead trees (snags) per acre? Are any of these standing dead trees (snags) > 10" in diameter? Are there any other perches (wires, poles or posts)? Are there at least 3 downed logs per acre?			
If the wetland has a forested class, add 1 point for each of the following: -trees > 50' tall -trees	5d. Structural diversity.		
-trees 20' - 49' tall	If the wetland has a forested class, add 1 point for each	h of the following:	
-shrubs. Yes=1 Indicate from the diagrams below whether interspersion between wetland classes is high, moderate, low or none? High=3 Moderate=2 Low=1 None=0 None=0 None=0 Yes=3 Yes=3 Yes=3 Yes=3 Is a heron rookery located within 300? Yes=2 Are raptor nest/s located within 300? Yes=1 Are there at least 3 standing dead trees (snags) per acre? Yes=1 Are there any other perches (wires, poles or posts)? Yes=1 Are there at least 3 downed logs per acre? Yes=1 Yes=1 Yes=1 Yes=6 Type=6 Yes=6	-trees >	> 50' tall	
herbaceous ground cover	-trees 2	20'- 49' tall	Yes=1
herbaceous ground cover			
Fe. Decide from the diagrams below whether interspersion between wetland classes is high, moderate, low or none? High=3 Moderate=2 Low=1 None=0 Fig. Habitat features. Answer questions below, circle features that apply, and score to right: Is there evidence of current use by beavers? Are raptor nest/s located within 300? Are there at least 3 standing dead trees (snags) per acre? Are any of these standing dead trees (snags) per acre? Are there any other perches (wires, poles or posts)? Are there at least 3 downed logs per acre? Sg. Connection to streams. (Score one answer only.) Is the wetland connected at any time of the year via surface water: to a perennial stream or a seasonal stream with fish; Yes=6 Or, to a seasonal stream with fish; Yes=6 Yes=4	-herba	eous ground cover	M-n 1
High=3 Moderate=2 Low=1 None=0 None=0 High=3 Moderate=2 Low=1 None=0 Fig. Habitat features. Answer questions below, circle features that apply, and score to right: Is there evidence of current use by beavers? Are raptor noskery located within 300? Are raptor nest/s located within 300? Are there at least 3 standing dead trees (snags) per acre? Are any of these standing dead trees (snags) > 10" in diameter? Are there any other perches (wires, poles or posts)? Are there at least 3 downed logs per acre? Are there at least 3 downed logs per acre? Sg. Connection to streams. (Score one answer only.) Is the wetland connected at any time of the year via surface water: to a perennial stream or a seasonal stream with fish; yes=6 yes=4	1 to 2 to 10	coup Broance co to the control of th	0
High=3 Moderate=2 Low=1 None=0 None=0 High=3 Moderate=2 Low=1 None=0 Fig. Habitat features. Answer questions below, circle features that apply, and score to right: Is there evidence of current use by beavers? Are raptor noskery located within 300? Are raptor nest/s located within 300? Are there at least 3 standing dead trees (snags) per acre? Are any of these standing dead trees (snags) > 10" in diameter? Are there any other perches (wires, poles or posts)? Are there at least 3 downed logs per acre? Are there at least 3 downed logs per acre? Sg. Connection to streams. (Score one answer only.) Is the wetland connected at any time of the year via surface water: to a perennial stream or a seasonal stream with fish; yes=6 yes=4	5. Dooido from the diagrams below whether intersper	rsion between wetland classes	
moderate Iow In Moderate = 2 Low = 1 None = 0 None = 0 High = 3 Moderate = 2 Low = 1 None = 0 None = 0 High = 3 Moderate = 2 Low = 1 None = 0 None = 0 Fig. Habitat features. Answer questions below, circle features that apply, and score to right: Is there evidence of current use by beavers? Yes = 3 Yes = 2 Are raptor nest/s located within 300? Are there at least 3 standing dead trees (snags) per acre? Are any of these standing dead trees (snags) > 10" in diameter? Are there any other perches (wires, poles or posts)? Are there at least 3 downed logs per acre? Ses = 1 Yes = 2 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 1 Yes = 2 Yes = 3 Yes = 1 Yes = 1 Yes = 1 Yes = 1 Yes = 2 Yes = 2 Yes = 3 Yes = 1 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 2 Yes = 1 Yes = 3 Yes = 2 Yes = 1 Yes = 3 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 2 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 2 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 2 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 2 Yes = 1 Yes = 1 Yes = 1 Yes = 2 Yes = 3 Yes = 2 Yes = 2 Yes = 1 Yes = 1	is high moderate low or none?		
moderate moderate moderate high fights Moderates Low=1 None=0 None=0 None=0 None=0 Answer questions below, circle features that apply, and score to right: lis there evidence of current use by beavers? Separate a heron rookery located within 300? Are raptor nest/s located within 300? Are there at least 3 standing dead trees (snags) per acre? Are any of these standing dead trees (snags) per acre? Are there any other perches (wires, poles or posts)? Are there at least 3 downed logs per acre? Separate water: to a perennial stream or a seasonal stream with fish; yes=6 yes=4	is might inductate, to the induction		
Answer questions below, circle features that apply, and score to right: Is there evidence of current use by beavers? Is a heron rookery located within 300'? Are raptor nest/s located within 300'? Are there at least 3 standing dead trees (snags) per acre? Are any of these standing dead trees (snags) > 10" in diameter? Are there any other perches (wires, poles or posts)? Are there at least 3 downed logs per acre? Are there at least 3 downed logs per acre? Sg. Connection to streams. (Score one answer only.) Is the wetland connected at any time of the year via surface water: to a perennial stream or a seasonal stream with fish; Yes=6 Yes=4			Moderate=2 Low=1
Are there at least 3 standing dead trees (snags) per acre?	5f. Habitat features. Answer questions below, circle features that apply, an	d score to right:	
Are there at least 3 standing dead trees (snags) per acre?			V2
Are there at least 3 standing dead trees (snags) per acre?	Is there evidence of current use by beavers ?	(, · , , , , , , , , , , , , , , , , , ,	
Are there at least 3 standing dead trees (snags) per acre?	Is a heron rookery located within 300?	· · · · · · · · · · · · · · · · · · ·	
Are there at least 3 downed logs per acre?	Are raptor nest/s located within 300'?	, , , , , , , , , , , , , , , , , , , ,	162=1
Are there at least 3 downed logs per acre?		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Voc-1
Are there at least 3 downed logs per acre?	Are there at least 3 standing dead trees (snags) per acro	in mater?	
Are there at least 3 downed logs per acre?	Are any of these standing dead frees (snags) > 10 In diameter		
Are there at least 3 downed logs per acre?	Are there any other perches (wires, poles or posts)?		165=1
Is the wetland connected at any time of the year via surface water: to a perennial stream or a seasonal stream with fish; Yes=6 Yes=4	Are there at least 3 downed logs per acre?		Yes=1
to a perennial stream or a seasonal stream with fish; Yes=6 or, to a seasonal stream without fish; Yes=4	5g. Connection to streams. (Score one answer only.)		
to a perennial stream or a seasonal stream with fish; Yes=6 or, to a seasonal stream without fish; Yes=4	Is the wetland connected at any time of the year via s	urface water:	
or, to a seasonal stream without fish; Yes=4	to a perennial stream or a se	asonal stream with fish;	
or, is not connected to any stream?			Yes=4
<u> </u>	or is not connected to any str	eam?	Yes=0

5h. Buffers.		
STEP 1 Estimate (to the nearest 5%) the % of each buffer or land-use type (below) that adjoins the wetland boundary. Then multiply the %/s by the factor(s) below and enter result in column to right:	STEP 2 Multiply result(s) of step 1: by 1, if buffer width is 25-50'; by 2, if buffer width is 50-100'; by 3, if buffer width is >100'. Enter results below and add subscore:	
roads, buildings or parking lots: %x0= lawn, grazed pasture, vineyards or	0	
annual crops: %x 1 =	x =	
ungrazed grassland or orchards: %x2=	x =	
open water or native grasslands: % x 3 =	x =	
	400 x 3 = 1200	7
Nest of Silitary.	Add Buffer total = 1200	1
STEP 3. Score points according to table at rig	tht: Buffer total 900-1200 600-899 300-599 100-299	Yes=3 Yes=2
5i. Connection to other habitat areas:		
- Is there a riparian corridor to other wetlan 100' wide with good forest or shrub cover t	ds within 0.25 of a mile, or a corridor > o any other habitat area?	Yes =6
- Is there a narrow corridor < 100' wide with good cover <u>or</u> a wide corridor > 100' wide with low cover to any other habitat area? Yes=4		
- Is there a narrow corridor < 100' wide with low cover or a significant habitat area within 0.25 mile but no corridor?		. Yes=1
- Is the wetland and buffer completely isolated by development and or cultivated agricultural land?		Yes=0
NOW: Add the scores circled (for Q.5a - Q. Is the <u>Total</u> greater than or equal to	to 22 points	Total = 15 Yes: Category II No. Category III

WETLANDS RATING FIELD DATA FORM BACKGROUND INFORMATION: Name of Rater: ______ Sent ____ Affiliation: Sent word C-sell. Date: ______ 11/20 + 11/09 Name of wetland (if known): Wetland B - Fore + 12:dy Government Jurisdiction of wetland: 12, 17, tas Co Location: 1/4 S: _____ of 1/4 S: ____ SEC: ____ TWNSHP: ____ RNGE: ____ SOURCES OF INFORMATION: (Check all sources that apply) Site visit: ___ USGS Topo Map: ___ NWI map: ___ Aerial Photo: ___ Soils survey: ___ Other: ___ Describe: _____ WHEN THE FIELD DATA FORM IS COMPLETE ENTER CATEGORY HERE: Circle answers: Q.1. High Quality Natural Heritage Wetland. Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR. 1a. Is there significant evidence of human-caused changes to topography or Yes: go to Q.3. No: go to 1b. hydrology of the wetland? Significant changes could include clearing, grading, filling, logging of the wetland or its immediate buffer, or culverts, ditches, dredging, diking or drainage of the wetland. Briefly describe the changes and your information source/s: 1b. Are there populations of non-native plants which are currently present and Yes: go to Q.3. appear to be invading native populations? Briefly describe any non-native plant No: go to 1c. populations and information source(s): 1c. Is there significant evidence of human-caused disturbance of the water quality Yes: go to Q.3. No: Possible of the system? Degradation of water quality could be evidenced by culverts entering the system, direct road/parking lot runoff, evidence of historic dumping of Category I wastes, oily sheens, extreme eutrophic conditions, livestock use or dead fish etc. Briefly describe:

Q.2. Regionally Rare Native Wetland Communities	
The Department of Ecology is developing a methodology for regionally rare native wetland communities. It is not yet available for use.	
Q.3. Irreplaceable Ecological Functions:	No to both: go to Q.4.
Does the wetland:	80 to Q.1.
- have at a least 1/2 acre of contiguous peat wetland;	Yes: go to 3a.
- or, have a forested class greater than 1 acre;	Yes: go to 3b.
Q.3a. Peat Wetlands.	
3a1. Does at least 1/2 acre of the contiguous peat wetland have < 25% areal cover of any combination of species from the list of invasive/exotic species on p.19, and have < 80% areal cover of Spirea douglasii?	Yes: Category I No: go to Q.4.
Q.3b. Mature forested wetland.	
3b1. Is the average age of dominant trees in the forested wetland > 80 years?	Yes: Category I No: go to 3b2.
3b2. Is the average age of dominant trees in the forested wetland 50-80 years, and is the structural diversity high as characterized by a multi-layer community of trees > 50' tall and trees 20'-49' tall and shrubs and herbaceous groundcover?	Yes: go to 3b3. No: go to Q.5.
3b3. Is > 50% (areal cover) of the dominant plants in one or more layers (canopy, young trees, shrubs, herbs) invasive/exotic plant species from the p.19 list?	Yes: go to Q.5. No: Category I
Q.4. Category IV wetlands	
4.1. Is the wetland: less than 1 acre and, hydrologically isolated and, comprised of one vegetated class that is dominated (> 80% areal cover) by one species from the list in guidance p.18 4.2. Is the wetland: less than two acres	Yes: Category IV No: go to 4.2
and, hydrologically isolated, with one vegetated class, and > 90% of areal cover is any combination of species from the list in guidance p.19	Yes: Category IV No: go to Q.5.

O.5. Significant habitat value. Answer all questions and enter data requested.		Circle scores
O.J. Signaturate Internal variety		that qualify
5a. Total wetland area	acres	
	> 20.00	Yes=6
Estimate area, select from choices in the near-right column, and so	ore 10 - 19.99	Yes=5
in the far column:	5 - 9.99	Yes=4
Enter acreage of wetland here:acres, and source:	1-4.99	Yes=3
Enter acreage of wetland here:acres, and source:	0.1 - 0.99	Yes=2
	<0.1	Yes=1
5b. Wetland classes: Circle the wetland classes below that quality	fy:	
Open Water: if the area of open water is > 1/2 acre or > 10% of the area. Source:	ne total wetland	
Aquatic Beds: if the area of aquatic beds > 10% of the open water	area <u>or</u> > 1/2 acre.	
Emergent: if the area of emergent class is > 1/2 acre or > 10% of the	he total wetland	
area.		
Scrub-Shrub: if the area of scrub-shrub class is > 1/2 acre or > 10%	of the total wetland	
area.		
aicu.		
Forested: if area of forested class is > 1/2 acre or > 10% of the tot	al wetland area.	
·		
Add the number of wetland classes, above, that qualify, and	# of classes	31
then score according to the columns at right.	1	Yes =1
	2	Yes =3 Yes =5
e.g. If there are 4 classes (aquatic beds, open water, emergent &	3 4	Yes =8
scrub-shrub), you would circle 8 points in the far right column.		Yes =11
5		169 = 11
E. Plant energies diversity #0f		
5c. Plant species diversity.	Class species	
For all wetland classes (at right) that qualify in 5b. above, count		Yes=1
the number of different plant species you can find. You do not	и и 3	Yes=2
have to name them.	" " >3	Yes=3
AIM THE PAY CORRECTION		
Score in column at far right:	Emergent 1-2	Yes=1
	" 3-4	Yes=2
e.g. If a wetland has an aquatic bed class with 3 species, an	" >4	Yes=3
emergent class with 4 species and a scrub-shrub class with 2		
species you would circle 2, 2, and 1 in the far column.	Scrub-Shrub 1-2	
	" 3-4	
	" >4	Yes=3
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	Forested 1	
	2	
	" >2	Yes=3
1		1

5d. Structural diversity. If the wetland has a forested class, add 1 point for each of the following: -trees > 50' tall -trees 20'- 49' tall	
-shrubs	
-herbaceous ground cover	Yes=1
5e. Decide from the diagrams below whether <u>interspersion between wetland classes</u> is high, moderate, low or none?	
none low low	High=3 Moderate=2
moderate moderate high	Low=1 None=0
5f. Habitat features.	
Answer questions below, circle features that apply, and score to right:	
Is there evidence of current use by beavers?	Yes=3
Is there evidence of current use by beavers :	Yes=2
Are raptor nest/s located within 300?	Yes=1
Are shown at least 2 standing deed trees (snags) per acre?	Yes=1
And any of those standing dead trees (snags) > 10° in diameter?	Yes=1
Are any of these standing dead trees (snags) > 10" in diameter?	Yes=1
Are there at least 3 downed logs per acre?	Yes=1
5g. Connection to streams. (Score one answer only.)	
Is the wetland connected at any time of the year via surface water:	
to a perennial stream or a seasonal stream with fish;	Yes=6
or, to a seasonal stream without fish;	Yes=4
or, is not connected to any stream?	Yes=0

Th. D. Cour		P2
5h. Buffers.		
Estimate (to the nearest 5%) the % of each ouffer or land-use type (below) that adjoins the wetland boundary. Then multiply the %/s by the factor(s) below and enter result in column to right:	STEP 2 Multiply result(s) of step 1: by 1, if buffer width is 25-50'; by 2, if buffer width is 50-100'; by 3, if buffer width is >100'. Enter results below and add subscore:	
roads, buildings or parking lots: %x 0 =	0	
awn, grazed pasture, vineyards or annual crops: %x1=	x =	
ungrazed grassland or orchards: %x2=	x =	
open water or native grasslands: %x3=	x=	
forest or shrub: $\% \frac{\cancel{100}}{\cancel{100}} \times 4 =$	400 x 3 = 1200	
	Add Buffer total = 1200	
STEP 3. Score points according to table at ri	ght: Buffer total 900-1200 600-899 300-599 100-299	Yes=4 Yes=3 Yes=2 Yes=1
5i. Connection to other habitat areas:		
Is there a riparian corridor to other wetland 100' wide with good forest or shrub cover	nds within 0.25 of a mile, or a corridor > to any other habitat area?	Yes =6
Is there a narrow corridor < 100' wide with with low cover to any other habitat area?	h good cover <u>or</u> a wide corridor > 100' wide	Yes=4
- Is there a narrow corridor < 100' wide with low cover <u>or</u> a significant habitat area within 0.25 mile but no corridor?		
- Is the wetland and buffer completely isolacultivated agricultural land?	ated by development and or	Yes=0
	25i above) to get a Total T	otal = 15