

# **Sewall Wetland Consulting, Inc.**

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

November 15, 2021

Bill Sparks PO Box 490 Cle Elum, Washington 98922

RE: Critical Area Report – Parcel #761133

Kittitas County, Washington

SWC Job #21-175

Dear Bill,

This report describes our observations of any jurisdictional wetlands, streams and/or buffers on Parcel #761133, in unincorporated Kittitas County, Washington (the "site"). The site consists of a 13.59 acre square shaped parcel located on the south side of Bowers Road within the NW ¼ of Section 26, Township 18 North, Range 18 East of the W.M.

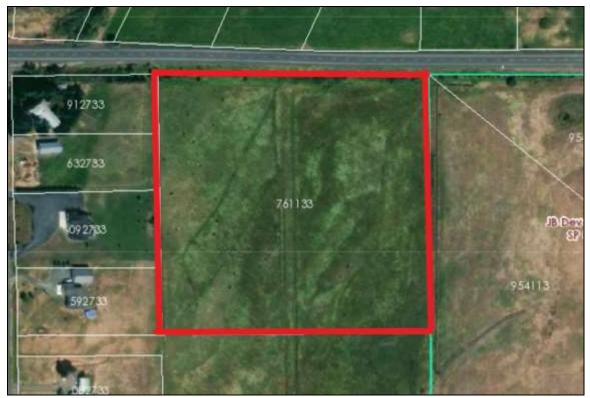
#### **METHODOLOGY**

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site in in December of 2019 and in September of 2021. 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 City of Ellensburg 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.

This site was walked in 2020 with Lori White of WADOE during our inspection of the abutting Parcels #322733, 20998& 20999 for CWH, LLC to the south, and no wetlands were observed.



Above: Vicinity Map of site



Above: Aerial photograph from Kittitas Mapsifter website

A series of 9 soil pits/data points were excavated on the site to characterize the plant, soil and hydrology conditions.

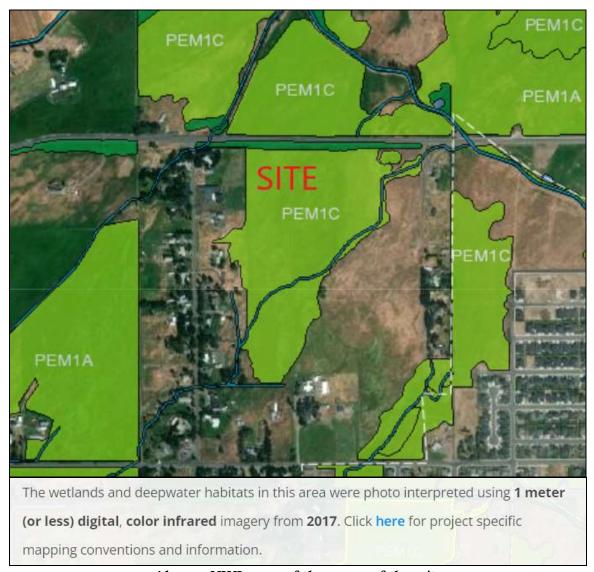
#### **OBSERVATIONS**

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 and the NRCS Soil Survey online mapping and Data, Kittitas County Taxsifter website, WADNR Fpars water type mapping and the WDFW Priority Habitats and species mapping.

# **National Wetlands Inventory (NWI)**

The NWI map depicts a large emergent wetland on the site which matches historic flood irrigation patterns on the site. The main irrigation channel is depicted as a stream crossing south of the site. This inventory was done from interpretation of a 2017 aerial photographs with no field verification of the mapping.



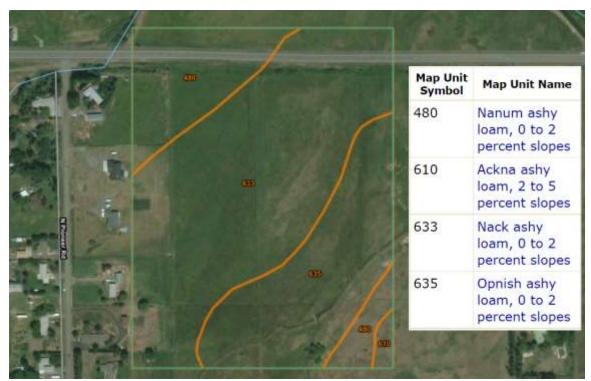
Above: NWI map of the area of the site

## Soil Survey

According to the NRCS Soil Mapper website, the site is mapped as containing 5 soil types; Nanum Ashy loam (Map unit 480), Ackna ashy loam (Map Unit 610), Mitta ashy silt loam (Map Unit #621), Nack ashy

loam (Map unit #633) and Opnish ashy loam (Map unit #635). These soils range from somewhat poorly drained to well drained.

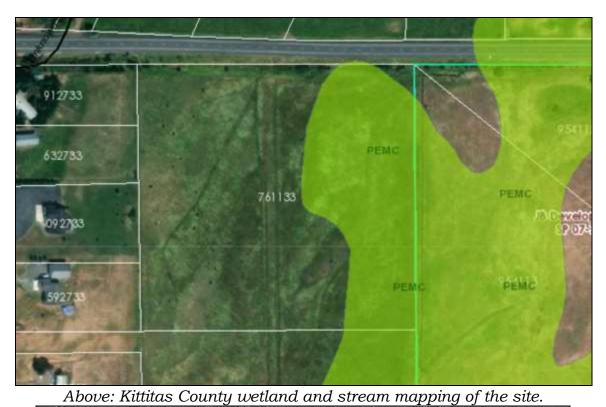
None of these soil series are considered "hydric" or wetland soils according to the publication Hydric Soils of the United States (USDA NTCHS Pub No.1491, 1991).



Above: NRCS soil map of the site.

# **Kittitas County Mapsifter**

The Kittitas County Mapsifter website depicts a portion of an emergent wetland extending onto the eastern side of the site. As with the NWI inventory, this mapping represents an aerial photograph interpretation of the site with no field verification.



18126 18133 18127 18128 18129 18130 18131 18132 18132 18133 18273

Above: Kittitas Taxsifter Lidar depiction of the site.

# **WDNR Fpars Stream Mapping**

According to the WDNR Fpars stream mapping website, there are no streams on or near the site.

# **WDFW Priority Habitats and Species Maps**

The WDFW Priority Habitats and Species mapping for the site depicts the same wetland carried over from the NWI mapping.



Above: WADNR Fpars stream mapping of the site



Above: WDFW Priority habitat mapping of the area of the site.

#### Field observations

The site is used for grazing livestock and consists of a historically flood irrigated pasture. Flood irrigation over most of the site was ceased several years ago. The main irrigation channel that had supplied irrigation water to the site runs along the north edge of the site and at the toe of the south side of the road prism of Bowers Road. Water within this ditch originates in the KRD system to the north. Water was dispersed onto the site through a series of irrigation ditches which then dispersed water across the site using typical flood irrigation practices. Water that passed through the site drained into a large irrigation ditch just south of the site.

An old roadbed type feature passes through the center of the site from north to south. Several large cobble piles are present from past agricultural work on the site.



Above: Approximate location of irrigation ditches across the site (light blue lines).

The site is characterized by a grazed plant community of a mix of weeds and various pasture grasses. Species noted in the pastures include tall fescue, quackgrass, prickly lettuce, timothy, sedge, Baltic rush, cheatgrass, bentgrass, thistle, aster and some knapweed.

In general the soils on the site are cobbly loams with soil chroma colors of 3 or 2 without any redoximorphic features. Portions of the site include cobbly sandy loams with similar soil colors.

Areas within the old irrigation channels and flood irrigation flow paths have some wetland species and relic hydric soil indicators. However, none of these areas contained any evidence of wetland hydrology even in the late September period when groundwater levels are at their highest in the valley.



Above: Data point locations.

## Conclusion

There are no wetlands, streams or buffers on the site.

Sincerely,

Sewall Wetland Consulting, Inc.

Ed Sewall

Senior Wetlands Ecologist PWS #212

Attached: Data sheets

### **REFERENCES**

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

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

Kittitas County Municipal Code Title 17A

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

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

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

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

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

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

	ETERMINATION DATA FOR	<b>*</b>
oject/Site: Sparts Barri		以、ナナット。」 Sampling Date: 12-24-1
plicant/Owner:		State: いク Sampling Point: DP#)
estigator(s): 51 Sewa	Section, Township,	Range:
ndform (hillslope, terrace, etc.):	Local relief (concar	ve, convex, none): Slope (%):
bregion (LRR):	Lat:	Long: Datum:
ii Map Unit Name:		NWI classification:
e climatic / hydrologic conclitions on the site typical f	or this time of year? YesN	o (If no, explain in Remarks.)
e Vegetation, Soil, or Hydrology	significantly disturbed? A	vre "Normal Circumstances" present? Yes No
e Vegetation, Soil, or Hydrology	naturally problematic? (I	lf needed, explain any answers in Remarks.)
UMMARY OF FINDINGS - Attach site n	nap showing sampling poir	nt locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No /	
tydric Soil Present? Yes	No 1 is the samp	
Wetland Hydrology Present? Yes	No within a We	itland? Yes No
lemarks:	,	
EGETATION – Use scientific names of	plants.	
	Absolute Dominant Indicat	or Dominance Test worksheet:
ree Stratum (Plot size:)	% Cover Species? Status	Number of Duminant apecies /
•		That Are OBL, FACW, or FAC: (A)
		Total Number of Dominant
·		Species Across All Strata: (B)
·	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)
Sapling/Shrub Stratum (Plot size;)	- Folar Cover	That Are OBL, FACW, or FAC: (A/B)
-		Prevalence Index worksheet:
L		Total % Cover of: Multiply by:
i		OBL species x1 =
-		FACW species x 2 =
i		FACU species
lerb Stratum_(Plot size:)	= Total Cover	UPL species x5=
. Festuren SAD	EU FA	Column Totals: (A) (B)
		Prevalence Index = B/A =
		Prevalence Index = B/A =
		Prevalence Index = B/A =  Hydraphytic Vegetation Indicators:  _ Dominance Test is >50%
		Prevalence Index = B/A =  Hydraphytic Vegetation Indicators:  Dominance Test is >50%  Prevalence Index is ≤3.0¹
3.		Prevalence Index = B/A =  Hydraphytic Vegetation Indicators:  _ Dominance Test is >50%
3.		Prevalence Index = B/A =  Hydraphytic Vegetation Indicators:  Dominance Test is >50%  Prevalence Index is ≤3.0¹  Morphological Adaptations¹ (Provide supporting
		Prevalence Index = B/A =  Hydraphytic Vegetation Indicators:  Dominance Test is >50%  Prevalence Index is ≤3.0¹  Morphological Adaptations¹ (Provide supporting data in Remerks or on a separate sheet)
3		Prevalence Index = B/A =  Hydraphytic Vegetation Indicators:  Dominance Test is >50%  Prevalence Index is ≤3.0¹  Morphological Adaptations¹ (Provide supporting data in Remerks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must
3	= Total Cover	Prevalence Index = B/A =  Hydraphytic Vegetation Indicators:  Dominance Test is >50%  Prevalence Index is ≤3.0¹  Morphological Adaptations¹ (Provide supporting data in Remerks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3	= Total Cover	Prevalence Index = B/A =  Hydraphytic Vegetation Indicators:
2	= Total Cover	Prevalence Index = B/A =  Hydraphytic Vegetation Indicators:  Dominance Test is >50%  Prevalence Index is ≤3.0¹  Morphological Adaptations¹ (Provide supporting data in Remerks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

SOIL			Sampling Point:
Profile Description: (Describe to	the depth needed to document the indic	cator or confirm the absenc	e of Indicators.)
Depth Matrix	Redox Features	. <u></u>	
(inches) Color (moist)	% Color (maist) % Ty	yoe Loc Texture	Remarks
16 7.5402	·5/3	· Cuhhi	
	· · · <del>-</del>		
	on, RM=Reduced Matrix, CS=Covered or		ocation: PL=Pore Lining, M=Matrix.
	e to all LRRs, unless otherwise noted.)		s for Problematic Hydric Solis <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)		Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)		Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1		ced Vertic (F18)
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C)	Loamy Gleyed Matrix (F2 Depleted Matrix (F3)		Parent Material (TF2) r (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)		(Experim temake)
Depleted Below Dark Surface (A			
Thick Dark Surface (A12)	Redox Depressions (F8)		s of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)		hydrology must be present,
Sandy Gleyed Matrix (S4)		unless	disturbed or problematic.
Restrictive Layer (if present):			
Туре:			_
Depth (inches):		Hydric So	Il Present? Yes No
Remarks:			
HYDROLOGY	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	-dienter)	
Wetland Hydrology Indicators:			
Primary Indicators (minimum of one	required: check all that anniv)	Sec	ondary Indicators (2 or more required)
Surface Water (A1)	Salt Crust (B11)		Water Marks (B1) (Riverine)
	Biotic Crust (B12)		Sediment Deposits (B2) (Riverine)
High Water Table (A2) Saturation (A3)	Aquatic Invertebrates (B		Drift Deposits (B3) (Riverine)
			Drainage Patterns (B10)
Water Marks (B1) (Nonriverine Sediment Deposits (B2) (Nonri-			Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonrivering			Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in		Saturation Visible on Aerial Imagery (CS
Inundation Visible on Aerial Ima			Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Other (Explain in Remar		FAC-Neutral Test (D5)
Field Observations:			TAG TOOK (SO)
	NoDepth (inches):		
Water Table Present? Yes	No Depth (inches):		
	No Depth (inches):		gy Present? Yes No
Saturation Present? Yes (includes capillary fringe)	No Depin (inches):	wedand nydrolo	gy Fresent? 145 NO
	uge, monitoring well, aerial photos, previo	us inspections), if available:	
	·		
Remarks:			
	No indiant		
	NO THE COL	ے	

US Army Corps of Engineers

Arid West - Version 2.0

US Army Corps of Engineers

Arid West - Version 2.0

WETLAND DETERMINATION DATA FORM - Arid West Region (ケー/ちょう)	SOIL Sampling Point:
Project/Site: Sparts Barrels City/County: Kittitus Sampling Date: 12-24-19	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
· · · · · · · · · · · · · · · · · · ·	Depth Matrix Redox Festures
Applicaniowing.	(moches) Golor (moist) % Golor (moist) % Type Loc Texture Remarks
Investigator(s): <u>Sd Sewall</u> Section, Township, Range:	14 7.54R 2-5/3 cally c
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):	
Subregion (LRR): Let: Long: Deturn:	
Soil Map Unit Name: NWI classification:	
Are Vegetation, Soli, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No	
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.	
	'Type: C=Cencentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Costed Sand Grains.   Location: PL=Pore Lining, M=Matrix.  Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.)   indicators for Problematic Hydric Soils :
Hydrophytic Vegetation Present? Yes No Is the Sampled Area	, , , , , , , , , , , , , , , , , , , ,
Hydric Soil Present? Yes No within a Westland? Yes No	Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B)
Wetland Hydrology Present? Yes No	Black Histic (A3) Loany Mucky Mineral (F1) Reduced Vertic (F18)
Remarks:	Hydrogen Builfide (A4) Loamy Gleyed Metrix (F2) Red Parent Metorial (TF2)
	Stratified Leyers (A5) (LRR C) Depleted Matrix (F3) Other (Explein in Remarks)
	1 cm Muck (A9) (LRR D) Redox Dark Surface (F6)
WOOTSTON III. TO THE TOTAL OF T	Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)
VEGETATION - Use scientific names of plants.	Thick Dark Surface (A12) Redox Depressions (F8) Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Vernal Pools (F9) wetland hydrology must be present,
Abeclute Dominant Indicator Tree Stratum (Plot size: ) % Cover Species? Status	Sandy Glayed Matrix (S4) was a first of the same of th
1. Status Prior size: Number of Dominent Species 7. That Are OBL, FACW, or FAC; (A)	Restrictive Layer (if present):
	Туре:
3 Total Number of Dominant Species Agrees All Strata: (B)	Depth (inches): Hydric Soil Present? Yes No
4	Remarks:
Percent of Dominant Species That Are OBL, FACW, or FAC: 1 (A/B)	no idication
Sacting/Shrub Stratum (Plot size: = Total Cover   That Are OBL, FACW, or FAC: (AB)	No Michael
1. Pravalence Index worksheet:	ļ
2. Total % Cover of: Multiply by:	HYDROLOGY
3 CBL species x1 =	
4 FACW species x2=	Wettend Hydrology Indicators:
5 FAC species x3 =	Primary indicators (minimum of one required; check all thet spoly) Secondary indicators (2 or more required)
Total Cover FACU species x4 =	Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine)
Herb Stratum (Plot size:)  L/4 F4/ UPL speciesx5=	High Water Table (A2) Blotic Crust (B12) Sediment Deposits (B2) (Rivertne)
Column Totals: (A) (B)	Seturation (A3) Aquetic Invertabrates (B13) Drift Deposits (B3) (Rivertine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
	Sediment Deposits (B2) (Nontriverine) — Dxidized Rhizospheres along Living Roots (C3) — Dry-Season Water Table (C2)
3. Prevalence index = B/A =	
4. Hydrophytic Vegetation indicators: 5. Dominance Test is >50%	Surface Soil Cracks (86) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C8)
	Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitand (D3)
6 Prevalence Index is x3.01	
7 Morphological Adaptations (Provide supporting date in Remarks or on a separate sheet)	Field Observations:
6Problematic Histophytic Venetation (Evretain)	Surface Water Present? Yes No Depth (Inches):
Woody Vine Stratum (Plot size: = Total Cover	Water Table Present? Yes No Depth (Inches);
yrusuy vine swateri (Prot size:) 1. Indicators of hydric soil and wetland hydrology must	Saturation Present? Yes No Depth (truches): Westland Hydrology Present? Yes No
be present, unless disturbed or problemátic.	(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, sarial photos, previous inspections), if available:
= Total Cover Hydrophytic	Совинов племенова разведения увода, инживницу мов, авим рисскор, ргамены парасской в докамента.
Vegetation	Remerks:
% Bare Ground in Herb Stratum	Normalize.
Remarks:	

WETLAND DETERMINATION DATA FORM - A	rid West Region 9-15-76	SOIL	Sampling Point:
Project/Site: Sparks Barres City/County: Kil	ナアンプリン Sampling Date: 12-24-19	Profile Description: (Describe to the depth useded to document the indicator of	r confirm the absence of indicators.)
Project/site: Chy/county:	State: WA Sampling Point: DP# 3	Depth Natrix Redox Features (inches) Color (moist) % Color (moist) % Type*	Loc Texture Remerks
Applicant/Owner:		(inches) Color (moist) % Color (moist) % Ivne / // 7.5 Yh 7.5/7 Fam F. F.	TEANER SOMETRE
Investigator(s): Sewall Section, Township, Range:		10 1.3 III 2/3 FEE FEE FEE	
Landform (hillslope, terrace, etc.): Local relief (concave, conv			
Subregion (LRR): Lat: Lo	ong: Defunt:		
Soll Map Unit Name:	NWI classification:		
Are climatic / hydrologic conditions on the site typical for this time of year? YesNo	(If no, explain in Remarks.)		
Are Vegetation, Soit, or Hydrology significantly disturbed? Are "Non	mai Circumstances" present? Yes No		
Are Vegetation, Soli, or Hydrology naturally problematic? (If needs	d, explain any anawers in Remarks.)		
SUMMARY OF FINDINGS Attach site map showing sampling point loca	stions transacts important features atc		
Comments of Findings - Attack site may showing sampling point loca	tools, consects, important leatures, etc.	¹Type: C=Concentration, D≠Depletion, RM=Reduced Matrix, CS=Covered or Costed	
Hydrophytic Vegetation Present? Yes No ls the Sampled Are		Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Solis <sup>3</sup> :
Hydric Soil Present? Yes No within a Wetland?	Yes No	Histosol (A1) Sandy Redox (S5) Histo Epipedon (A2) Stripped Matrix (S6)	1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Wetland Hydrology Present? Yes No		Black Histic (A3) Loarny Mucky Mineral (F1)	Reduced Vertic (F18)
Remarks:		Hydrogen Sulfide (A4) Loamy Gleyed Metrix (F2)	Red Parent Material (TF2)
		Stratified Leyers (A5) (LRR C) Depleted Matrix (F3)	Other (Explain in Remarks)
		1 cm Muck (A9) (LRR D) Redox Dark Surface (F8)	
		Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)	
VEGETATION – Use scientific names of plants.		Thick Dark Surface (A12) Redox Depressions (F8)	3indicators of hydrophytic vegetation and
	ominance Test worksheet:	Sandy Mucky Mineral (S1) Vernal Pools (F9)	wetland hydrology must be present,
Tree Stratum (Plot size: ) % Cover Species? Status No.	umber of Dominant Species /	Sendy Gleyed Matrix (S4)	unless disturbed or problematic.
1	net Are OBL, FACW, or FAC:(A)	Restrictive Layer (if present):	
2	otal Number of Dominant	Type:	
	pecies Acrose All Strata: (B)	Depth (Inches):	Hydric Soil Present? Yes No
4	and the state of t	Remarks:	
= Total Cover Th	ercent of Dominant Species hat Are OBL, FACW, or FAC: 1 (A/B)	1.1	1210年
Sabino Shrub Stratum (Ptot size:)	,		7-0-1-1
1 Pr	revalence index worksheet:		
2	Total % Cover of: Multiply by:	HYDROLOGY	
The state of the s	BL species x 1 *	Wetland Hydrology Indicators:	
	ACW species x 2 =	Primary Indicators (minimum of one required: check all that sonly)	Secondary indicators (2 or more required)
	AC species x3=	Surface Water (A1) Salt Crust (B11)	Water Marks (B1) (Riverine)
	ACU species x 4 =	High Water Table (A2) Blotic Crust (B12)	Sediment Deposits (B2) (Riverine)
100	PL species x5 =	Seturation (A3) Aquatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)
Cc	olumn Totals:(A)(B)	Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
2	Prevalence Index = B/A =		iving Roots (C3) Dry-Season Water Table (C2)
4	ydrophysic Vegetation Indicators:	Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
***************************************	Dominance Test is >50%	Surface Soil Cracks (B6) Recent Iron Reduction in Tilled	Soils (C6) Saturation Visible on Aerial Imagery (C8)
0.	Prevalence Index is \$3.0°	Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7)	Shallow Aquitand (D3)
0.	Morphological Adaptations <sup>1</sup> (Provide supporting	Water-Stained Leaves (B9) Other (Explain in Remarks)	FAC-Neutral Test (D5)
0	data in Ramarks or on a separate sheet)	Field Observations:	
0.	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	Surface Water Present? Yes No Depth (Inches):	-
Woody Vine Stratum (Plot eize:)		Water Table Present? Yes No Depth (Inches):	-
1.	ndicators of hydric soll and wetland hydrology must	Saturation Present? Yes No Depth (Inches):	Wetland Hydrology Present? Yes No No
	s present, unless disturbed or problematic.	(Includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inst	sections), if available:
= Total Cover H	ydrophytic	manation : care that notes for note; Read at crossouring agest and property by parions that	And the second s
V	egetation /	Remarks:	
	resent? Yes No No	F HOLE FOR SHIP	
Remarks:			
1		1	

Treatment Species Character Sp	WETLAND DET	ERMINATION DATA FORM	- Arid West Region (7 -/-	デーで SOIL		Sampling Point:
State CVATON - Use accident (from the part of the property from the part of th	Sa. M. R.	c K			h nseded to document the indicator or confirm	the absence of indicators.)
Seeding Price of the Control of Seeding Control of		Chy/County:		Depin Negarix	Redox Features	
State of the state			State: WA Sampling Point: UP		Color (moist) % Type Loc	Texture Remarks
Long:    Description   Descrip	investigator(s): 2d Sewall	Section, Township, Ra	nge:		<del></del>	
Los May Live Home Not consider. Physiology conditions on the able special for fine time of year? Ye No In the state of year in the consider. Physiology conditions on the able special for fine time of year? Ye No Not reported in the consideration of the able special for fine time of year? Ye No In the state of year in the consideration of the able special for fine time of year? Ye No In the state of year in the	Landform (hillslope, terrace, etc.):	Local relief (concave,	convex, none): Slope (%):	14 1.5 yr 2.5/-	<u> </u>	CHMY
Set May Delt Rose - Not Rose - No	Subregion (LRR):	Lat:	Long: Deturn:			
The Communitation of the State of the State of year's Year of planting any suprising distance of Presence of Year of Provincing any suprising distance of Presence of Year of	• • • • • • • • • • • • • • • • • • • •		NWI classification			
No Vegatetion fool or hydrology		his there of season Ware in No.				
The Statistics   Private	• •					
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc.  Type: C-Consensation D-Depleton, RM-Resould Mark CSP-Cover of Coard Seri Craims  Type: No.   Type: C-Consensation D-Depleton, RM-Resould Mark CSP-Cover of Coard Seri Craims  Type: No.			,			
Hydrocytic Vegatiation Present?  Yes No	Are Vegetation, Soil, or Hydrology	naturally problematic? (if ne	seded, explain any answers in Remarks.)			
Inforcement   Present   Very   No     Inforcement   Present   Very   No     Inforcement   Present   Very   No     Inforcement   Very   Inforcement   Very   Inforcement   Very   No     Inforcement   Very   Inforcement	SUMMARY OF FINDINGS - Attach site maj	showing sampling point I	ocations, transects, important features, e	tc.		* ************************************
In the Sampled Array						
Water of hydrology Present?  Yes No Water (Art) (Life B)  Remarks  FECETATION — Use accientific names of plants.  Tres Strakes Plot size		No Is the Sampled	Area	1	•	• • • • • •
Weather Optionage Prise Base / Test Cover		No within a Wetlan	nd? Yes No			
## Provision Building (PA)  ##		No				
### FEGETATION — Use scientific names of plants.    Females   Abacks   Dominant Indicator   Subtem   Management   Manageme	POSTIMENS.			,		
Copyrising Bioton Dark Durkson (A1)   Depleted Bioton Dark Surface (F7)				1		Other (Explain in Remarks)
Trick Dark Surface (A12)						
Toe Straklin (Plot size:	VEGETATION - Use scientific names of pla	nts				Indicators of hydrophytic vegetation and
Time Stratum (Flot size:   X. Corar. Specializ? Stable.   Number of Dominant Special Test for Society (Flot size:   Section (Section (Se			Dominance Test weeksheet			
Trial Avan COSL, FACK, or FAC:   (A)   Type:	Tree Stratum (Plot size:)		1			unless disturbed or problematic.
Total Number of Comment   (B)	1			Restrictive Leyer (if present):		
Species Across All Stratus: (B)  Secretary of Deministral Species   Percent of Deministration   Percent of Deministral Species   Percent of Deministration   Percent	2		Total Number of Demissor	1		
Fercant of Dominant Spacies Sensition/Shrub Stratum (Plot size:    Frevalence index worksheet:   Total X Cover of:   Multiply by:   Mult	3					Hydric Soil Present? Yes No
Sensing/Sinub Stratum (Plot size:	4		Bennet of Deminent Species ( )	Remarks:		
Prevalence kidex worksheet:    Total 'K Cover of: Multich br.		= Total Cover		В)	No which	<u>ت</u> م
Total % Cover of:	Sapling/Shrub Stratum (Plot size:)					,
CBL species   X1 =	1-		· ·			
## FACW species x2 = FACW species x2 = FACW species x3 = FAC species x3 =	2			HYDROLOGY		
# FAC Washes # FAC Species   X 3 =	3.			Wetland Hydrology Indicators:		
Surface Water (A1)	4-		,	1	; check all that apply)	Secondary indicators (2 or more required)
High Stratum (Plot size:    High Water Table (A2)	] 5	- T-1-1 C		Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
Column Totals: (A) (B)  Column Totals: (A) (B)  Prevalence Index = B/A =	Herb Stratum (Plot size:			High Water Table (A2)	Biotic Crust (B12)	
		50 FACE	1,	Seturation (A3)	Aquetic Invertebrates (B13)	Drift Deposits (B3) (Riverine)
Hydrophytic Vegetation indicators:    Dominance Test is >50%   Dominance Test is >50%   Saturation Visible on Aerial Imagery (CB)   Saturation Visible on	2		(C)	Water Marks (B1) (Nonriverine)		
Surface Soil Cracks (B6) Surface Soil Cracks (B7) Surface Soil Cracks (	3		Prevalence Index = B/A =	1		
5	4.		1 - / -			
6.	5		Dominance Test is >50%			
7	6		1 — ***********************************	1 1	· —	
8	7		Morphological Adaptations (Provide supporting		- Carol fordisms in London	the control of the control
Woody Vine Stratum (Plot size:  'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problemstic.  Water Table Present? YesNoDepth (Inches):	8		, ,		to Depth (Inches):	
Indicators of hydric soil and wedland hydrology must be present, unless disturbed or problemstic.   Saturation Present? Yes No Depth (Inches):   Wedland Hydrology Present? Yes No Describe Recorded Data (streem gauge, monitoring well, sarial photos, previous inspections), if available:    Saturation Present? Yes No Depth (Inches):   Wedland Hydrology Present? Yes No Describe Recorded Data (streem gauge, monitoring well, sarial photos, previous inspections), if available:   Remarks:   Rem		= Total Cover	riculamane riyuropriyae vegatason (expisin)			
1. be present or hydrocyl rouse and weather hydrocyl rouse. 2. = Total Cover	woody vine Stratum (Plot size:)		Indicators of fractic soil and united by ductors accord			nd Hydrology Present? Yes No
2 = Total Cover = Total Cover   Hydrophytic   Vegetation   Present? Yes   No   Remerks:	1.			(Includes capitary fringe)		
% Bare Ground in Herb Stretum % Cover of Biotic Crust Present? Yes No Remarks:		. 7 44 8		Describe Recorded Data (stream gauge, mo	nnonng well, aerial photos, previous inspections), if	avallable:
% Bare Ground in Herb Stretum % Cover of Biotic Crust Present? Yes No Remarks:		= 1 otal Cover.				
Remarks:		er of Biotic Crust		Remarks:		, ,
	Remarks:				10 11	1 cents

WETLAND DETERMINATION DATA FORM - Arid West Region	C7 - /5-7 C SOIL Sampling Point
	Date: 2-24-/6  Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
	Depth Matrix Redox Features
Applicant/Owner: State: WA Sampling Po	Point: DP# 5 (inches) Color (moist) % Color (moist) % Type Loc' Texture Remarks  3 / U/h 2/z
Investigator(s): Ed Sewall Section, Township, Range:	
Landform (hillstope, terrece, etc.): Local relief (concave, convex, none):	O(pt (4))
Subregion (LRR): Long:	Detun:
Solf Map Unit Name: NWI classification:	
Are climatic / hydrologic conditions on the site typical for this time of year? YesNo (If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes	es
Are Vegetation, Soil, or Hydrologynaturally problematic? (If needed, explain any answers in Remarks	1
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, importar	
JUMMARY OF PINDINGS - Attach site map snowing sampling point locations, transects, importan	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Costed Sand Grains.
Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Wetland Hydrology Present? Yes No	Black Histic (A2) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Metric (F2) Red Parent Metertal (TF2) Stratified Leyers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks)  1 cm Muck (A8) (LRR D) Redox Dark Surface (F6)
VEGETATION - Use scientific names of plants.	Thick Dark Surface (A12) Redox Depressions (F8) Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Vernal Pools (F9) wetland hydrology must be present,
Absolute Dominant Indicator Dominance Test worksheet:  Tree Stretum (Plot size: ) % Cover Species? Status humber of Deminant Species	Sandy Glayed Metrix (S4) unless disturbed or problematic.
1. Species Statum (P101 822:) Species Sp	(A) Restrictive Layer (if present):
2 Total Number of Dominant	Тура:
3 Species Across All Strate:	(B) Depth (finches): No
A. Percent of Dominant Species That Are OBL, FACW, or FAC:  Sapino/Shrub Stratum (Plot size: )  1. Pravalence Index worksheet:	
2	HADDI UGA
3. OBL species x1=	
FACW species x2=	
5. FAC species x3 = Total Cover FACU species x4 =	
	Link Minter Table (AT) Phylic Court (Ed.2) Sadiment Deports (E.2) (Blanch
Harto Stratum (Plot size: x5=  1. A g Typy cour 3/1 3U FA Column Totals: (A)	(R) Seturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Rivertne)
2	Water Marks (B1) (Nonriverine) Hydrogen Suffide Odor (C1) Crainage Patterns (B10)
3. Prevalence index = B/A =	
4. Hydrophytic Vegetation indicators	rs: Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Titled Soils (C6) Saturation Visible on Aerial Imag
5 Dominance Test is >50%	In undation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Station Aguitant (IQ3)
6Prevalence Index is ≤3.0¹	Water-Stained Legues (R9) Other (Expision in Remarks) FAC-Neutral Test (D5)
7. Morphological Adaptations 1 (Product in Remarks or on a sep	
Broklamatic Lindon hitle Vacate	Surface Water Present? Yes No Death (Inches):
Woody Vine Stratum (Plot size: ⇒ Total Cover	Water Table Present? Yes No Depth (Inches):
1 Indicators of hydric soil and wetland	nd hydrology must Saturation Present? Yes No Depth (Inches): Wetland Hydrology Present? Yes N
2 be present, unless disturbed or prob	(Includes capitlery tringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if evallable:
= Total Cover Hydrophytic	
% Bare Ground in Herb Stratum % Cover of Biotic Crust Present? Yes N	No Remarks:
Remarks:	
NATION CO.	No indian

US Army Corps of Engineers

Arid West - Version 2.0

US Army Corps of Engineers

Arid West -- Version 2.0

WETLAND DETERMINATION DATA FORM - Arid West Region	9-15-21	SOIL		Sampling Point:
Project/Site: Sparks Bened City/County: Kithing Sampling Date:	12-24-19	Profile Description: (Describe to the dept	h needed to document the indicator or confi	irm the absence of Indicators.)
	- DE	Depth Matrix	Redox Features	
	<u></u>	(inches) Color (moist) %	Color (maist) % Type Loc2	Texture Remarks
Investigator(s): Ed Sewell Section, Township, Range:				
	ape (%):	-		
Subregion (LRR): Lat: Date	um;			
Soil Map Unit Name: NWI classification:				
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes	No			the state of the s
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important fo	eatures, etc.			
		Type: C=Cancentration, D=Depletion, RM= Hydric Soli Indicators: (Applicable to all I		Grains. <sup>2</sup> Location: PL≍Pore Lining, M≃Matrix. Indicators for Problematic Hydric Solis <sup>2</sup> :
Hydrophytic Vegetation Present? Yes No Is the Sampled Area		Histospi (A1)	Sandy Redox (S5)	1 cm Muck (AB) (LRR C)
Hydric Soil Present? Yes No within a Wetland? Yes No	_	Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Wetland Hydrology Present? Yes No Remarks:		Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
ENDERING CO.		Hydrogen Sulfide (A4)	Loamy Glayed Matrix (F2)	Red Parent Material (TF2)
		Stratified Layers (A5) (LRR C)  1 cm Muck (A9) (LRR D)	Depleted Matrix (F3) Redox Dark Surface (F6)	Other (Explain in Remarks)
		Depleted Below Dark Surface (A11)	Redox Dark Surface (F6) Depleted Dark Surface (F7)	
VEGETATION - Use scientific names of plants.		Thick Dark Surface (A12)	Redox Depressions (F8)	3Indicators of hydrophytic vegetation and
Absolute Dominant Indicator   Dominance Test worksheet:		Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,
Tree Stratum (Plot size:) % Cover Species? Status Number of Dominant Species	1	Sendy Gleyed Metrix (S4) Restrictive Layer (if present):		unless disturbed or problematic.
1 That Are OBL, FACW, or FAC:	(A)	Type:		
Total Number of Dominant	/	Depth (inches):	*****	Hydric Sail Present? Yes No
3 Species Across All Strata:	(B)	Remarks:		
Total Cover That Are OBL EACH or EAC	(A/B)	1100000		
Sapking/Shrub Stratum (Plot size:)  That Are OBL, FACW, or FAC:	(A/B)			
1. Pravalence index worksheet:				
2. Total % Cover of: Multio		HYDROLOGY		
3. OBL species x1 =		Wetland Hydrology Indicators:		
4 FACW species x2 = 5. FAC species x3 =		Primary indicators (minimum of one required:	; check all that apply)	Secondary Indicators (2 or more resulted)
		Surface Water (A1)	Selt Cruet (B11)	Water Marks (B1) (Riverine)
Hash Charleson (Diet sine)		High Water Table (A2)	Blotic Crust (B12)	Sediment Deposits (B2) (Riverbe)
1. Feiter 20 FAC Column Totals: (A)	(B)	Saturation (A3)	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)
2		Water Marks (B1) (Nonriverine)	Hydragen Suffide Odor (C1)	Drainage Patterns (B10)
3 Prevalence Index = B/A =		Sediment Deposits (B2) (Nonriverine) Orift Deposits (B3) (Nonriverine)	Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4)	loots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
4. Hydrophytic Vegetation indicators:		Surface Soil Cracks (86)	Recent Iron Reduction in Titled Soils (	
5		Inundation Visible on Aerial Imagery (B7		Shallow Aquitand (D3)
6 Morphological Adaptations <sup>1</sup> (Provide	e supposting	Water-Stained Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
data in Ramarks or on a separate		Field Observations:		
Total Cover Problematic Hydrophytic Vegetation	n¹ (Explain)	Surface Water Present? Yes N	io	
Woody Vine Stratum (Plot size:)		110101 74010 1 1000111	···	
Indicators of hydric soil and wetland hyd be present, unless disturbed or problems.		Saturation Present? Yes N (Includes capillary fringe)	io Depth (Inches): We	etland Hydrology Present? Yes No
2	GI.U.	Describe Recorded Data (stream gauge, mor	ritoring well, aerial photos, previous inspections	s), if evallable:
= Total Cover Hydrophytic Vegetation				
% Bare Ground in Herb Stretum		Remerks:		
Remarks:				
	4			

WETLAND DETERMINATION DAT	TA FORM Arid West Region	4 -15-71 SOI	L		Sampling Point:
Protect/Site: Sparks Banks City/Court	Withit		office Description: (Describe to the depth	needed to document the indicator or confir	m the absence of indicators.)
- injection - injection			pth Matrix	Redox Features	
Applicant/Owner:	State: WA Sampling Point:	/	thes Color (moist) %	Color (moist) % Type Loc	1 14 1
	Township, Range:				2250h (a
Landform (hillstope, terrace, etc.): Local reli	ief (conceve, convex, none):Siop	>= (%):			
Subregion (LRR): Let	Long: Detur	n:			
Soil Map Unit Name:	NWI classification:				
Are climatic / hydrologic conditions on the site typical for this time of year? Yes _	No (If no, explain in Remarks.)				
Are Vegetation	? Are "Normal Circumstances" present? Yes	No			
Are Vegetation Soil, or Hydrology naturally problematic?					
SUMMARY OF FINDINGS - Attach site map showing sampli	ing point locations, transects, important fe	stures, etc.	pe: C=Concentration, D=Decision, RM=R	educed Matrix, CS=Covered or Costed Send G	rains. Location: PL=Pore Lining, M=Metry.
Hydrophytic Vegetation Present? Yes No			dric Soll indicators: (Applicable to all LF		Indicators for Problematic Hydric Solis*:
Shindada Cali Danasanta	the Sampled Aree	_	Histosol (A1)	Sendy Redox (S5)	1 am Muck (AB) (LRR C)
Wetland Hydrology Present? Yes No	thin a Wetland? Yes No		Histic Epipedon (A2)	Stripped Matrix (\$6)	2 cm Muck (A10) (LFR B)
Remarks:			Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) Loamy Glayed Matrix (F2)	Reduced Vertic (F18) Red Parent Material (TF2)
			Stratified Lavers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
		, , , , , , , , , , , , , , , , , , , ,	1 cm Muck (A8) (LRR D)		and an inches of the second
			Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	
VEGETATION - Use scientific names of plants.			Thick Dark Surface (A12)	Redox Depressions (F8)	Indicators of hydrophytic vegetation and
Absolute Dominar Tree Stratum (Plot size:	n m		Sendy Riscky Mineral (S1) Sendy Gleved Metrix (S4)	Vernal Pools (F9)	wetland hydrology must be present, unless disturbed or problematic.
1	Number of Dominant Species That Are OBL, FACW, or FAC:	(A) Rea	Mrictive Layer (If present):		The same of posterior.
2			Type:		
3.	Total Number of Dominant Species Across All Strets:	(B)	Depth (Inches):	<del></del>	Hydric Soli Present? Yes No
4.			marks:		
× Totai C	Percent of Dominant Species Cover That Are OBL, FACW, or FAC:	(A/B)			
Saning/Shrub Stratum (Plot size:)					
1	Pravalence index worksheet:	.			
2	Total % Cover of: Multiply	HYC	ROLOGY		
3	OBL species x1 ± FACW species x2 =		tland Hydrology indicators:		
4	FAC species x3=	<del></del>	nerv indicators (minimum of one required; o	check all that apply)	Secondary Indicators (2 or more resulted)
S			Surface Water (A1)	Salt Cruet (B11)	Water Marks (B1) (Riverine)
Herb Stratum (Plot size:	FAC UPL species x5=		High Weter Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Rivertue)
1. Junes bultion 20	Column Totals: (A)	- (B)	Seturation (A3)	Aquetic Invertebrates (B13)	Drift Deposits (E3) (Riverine)
2 Bromes tolan 10	NOL		Water Narks (B1) (Nontiverine)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
3	Prevalence Index = B/A =		Sediment Deposits (B2) (Neuriverine)	Oxidized Rhizospheres along Living Roc	
4	Hydraphytic Vegetation indicators:		Orift Deposits (83) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (CS)
8	Dominance Test is >50%		Surface Soil Cracks (86) Inundation Visible on Aerial Imagery (87)	Recent Iron Reduction in Tilled Solls (Ct Thin Muck Surface (C7)	6) Saturation Visible on Aerial Imagery (C8) Shellow Acultand (D3)
8.	Prevalence Index is ≤3.01	1 1-	Water-Stained Leaves (B9)	Other (Explain in Remerks)	FAC-Neutral Test (D6)
7	Morphological Adaptations¹ (Provide s data in Remarks or on a separate i		d Observations:		
8	Derbiementir bhetroniuste Verestesten i		face Water Present? Yes No	Depth (inches):	
Woody Vine Stratum (Plot size:	aver		ter Table Present? Yes No	Depth (Inches):	
1.	*Indicators of hydric soli and wetland hydro		unation Present? Yes No	Depth (Inches): Wet	land Hydrology Present? Yes No
2.	be present, unless disturbed or problemati	ic. Lûnd	tudes capitary fringe)	toring well, serial photos, previous inspections).	if a columbia
= Tetal C	Cover Hydrophytic		anima caraspan ruma foruma Repitel summ	Annia most masses husannas huastona systhannosis.	n descurrent
% Bare Ground in Herb Stratum	Vegetation Present? Yes No	Ren	narka:		
Remarks:	Frankt 144			,	
1 delication				No India	4
en e					

WETLAN	ID DETERMINATION DATA FORM		9-15-21	SOIL.		Sampling Point
Project/Site: Sparks B.	cives chycounty K	(1) tritais	* 12-24-19	Profile Description: (Describe to the dept	th needed to document the indicator or conf	irm the absence of indicators.)
.,0,000	Crty/County:			Depth Martx	Redox Festures	_ <u>_</u> .
Applicant/Owner:		State: WA Sampling Poli	nto	(inches) Color (moint) % // 7.5 YM 7.5/3	Color (moist) % Type Loc <sup>2</sup>	C - high I -
		•		75 775		E DAILY 12
Landform (hillstope, terrace, etc.):	Local relief (concave,		Slope (%):			
Subregion (LRR):	Let:	_ Long: D	atum:			
Soil Map Unit Name:		NWI classification:				
Are climatic / hydrologic conditions on the site ty	.,	(If no, explain in Remarks.)				
Are Vegetation Soil or Hydrolog	gy significantly disturbed? Are	"Normal Circumstences" present? Yes	No			
Are Vegetation Soil or Hydrolog	gynaturally problematic? (if n	eeded, explain any answers in Remarks.	)			
SUMMARY OF FINDINGS - Attach a	elte mao showing sampling point l	ocations, transects, important	features. etc.			
					Reduced Metrix, CS=Covered or Costed Sand	
Hydrophytic Vegetation Present? Yes	No Is the Sampler	d Area		Hydric Soil indicators: (Applicable to all i	LPUS, lantess differense noted.) Sandy Redox (85)	Indicators for Problematic Hydric Soils <sup>3</sup> : 1 cm Muck (AB) (LRR C)
Hydric Sall Present? Yes	No within a Wetta	nd? Yes No		Histo Eppedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LPR S)
Wattend Hydrology Present? Yes	No			Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Remarks:				Hydrogen Bulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
			1	Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
1			1	1 cm Muck (A8) (LRR D)	Redox Dark Surface (F6)	
VEGETATION - Use scientific name	a of alasta			Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Depleted Dark Surface (F7)	The advantage of the description of the second
VEGETATION - USE SCIENTIFIC MARINE				Sendy Nucky Mineral (S1)	Redox Depressions (F8) Vernel Pools (F9)	Indicators of hydrophytic regetation and wetland hydrology must be present.
Tree Stratum (Plot size:)	Abeciute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:	\ 1	Sendy Gleyed Metrix (S4)	***********************************	uniess disturbed or problematic.
1.		Number of Dominant Species That Are OBL, FACW, or FAC:	(A)	Restrictive Layer (if present):		
2		1	, , ,	Type:		
3		Total Number of Dominant Species Across All Strets:	(B)	Depth (Inches):		Hydric Sall Present? Yes No
4				Remarks:		
	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:	VU (A/B)			
Sapling/Shrub Stratum (Plot size:		macAre Obl., PACW, or PAC.	(%6)			
1		Prevalence Index worksheet:		1		
2			tiply by:	HYDROLOGY		
3		OBL species x1 = _		Wettend Hydrology Indicators:		
1 4.		FACW species x2=_	<del></del>	Primary Indicators (minimum of one required	charte all that mounts)	Secondary indicators (2 or more resulted)
5		FAC species x3=_		Surface Water (A1)	Selt Crust (B11)	Water Maries (B1) (Riverine)
Herb Stratum (Plot size:)	= Total Cover	FACU species x4=_		High Water Table (A2)	Blotic Crust (B12)	Sediment Deposits (B2) (Rivertse)
1. Milarcal	542	UPL species x5=_		Seturation (A3)	Aquetic invertebrates (B13)	Drift Deposits (ES) (Riverine)
2 A5-174-0	UN FAC	Column Totals: (A)	(B)	Water Narks (B1) (Nonziverine)	Hydrogen Suffide Odor (C1)	Drainage Patterns (B10)
3.		Prevalence Index = B/A =		Sediment Deposits (B2) (Nonriverine)	Oxidized Philzoepheres along Living R	Loots (C3) Dry-Sesson Water Table (C2)
4.		Hydrophytic Vegetation indicators:		Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
5.		Dominance Test is >50%	l	Surface Soil Cracks (B6)	Recent Iron Reduction in Titled Soils (	
6.		Prevalence Index is ≤3.01		Imundation Visible on Aerial Imagery (67		Shallow Aquitard (D3)
7.		Morphological Adaptations* (Provi	de supporting	Water-State of Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
8.		data in Remerks or on a separa		Field Observations: Surface Water Present? Yes N		
	= Total Cover	Problematic Hydrophylic Vegetation	on (Explain)		loDepth (inches);	
Woody Vine Stratum (Plot size:					-0	stland Hydrology Present? Yes No
1		Indicators of hydric soil and wetland he present, unless disturbed or problem	yarology must matic.	(includes capillary frings)		
2				Describe Recorded Data (stream gauge, mor	nitoring well, serial photos, pravious inspections	i), if available:
	= Tetal Cover	Hydrophytic Vegetation				
% Bare Ground in Herb Stretum	% Cover of Biotic Crust	Present? Yes No		Remarks:		
Remarks:						ļ
						1
						l
		<del></del>	······································			and the second of the second o

WETLAND DETERMINATION DATA FORM	- Arid West Region - クー/デーです	SOIL	Sampling Point <u></u> シρ本
Productisher Sharks Beines Chriscounts K	(1777-13 Sampling Date: 12-24-19	Prefile Description: (Describe to the depth needed to document the indicator or o	onfirm the absence of indicators.)
Project/Site: Same Science City/County: K	Sampling Date:	Depth Matrix Redox Features	-
Applicant/Owner:	State: WA Sampling Point: D D # 5	(inches) Color (moist) % Color (moist) % Type L	
investigator(s): <u>Sd Sewall</u> Section, Township, Ra		16 101313	_ 91
Landform (hillslope, terrace, etc.): Local relief (conceve,	convex, none): Siape (%):		
Subregion (LRR):Let	Long: Detum:		
Soil Map Unit Name:	NWI classification:		
Are climatic / hydrologic conditions on the site typical for this time of year? YesNo_	(If no, explain in Remarks.)		
	"Normal Circumstances" present? Yes No		
	seded, explain any enswers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map showing sampling point			
oomments or currence - where are use abound sembind both:		*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Costed St	
Hydrophytic Vegetation Present? Yes No is the Sampler	t Arma	Hydric Sofi Indicators: (Applicable to all LRRs, unless otherwise noted.)	indicators for Problematic Hydric Soils <sup>1</sup> :
Hydric Soil Present? Yes No Wetter a Wetter	• •	Histosol (A1) Sendy Redox (S5) Histo Epipedon (A2) Stripped Matrix (S6)	1 cm Muck (A8) (LRR C)
Wetland Hydrology Present? Yes No		Hatto Epipedon (A2) Stripped Matrix (S6) Black Hatlo (A3) Loamy Mucky Mineral (F1)	2 cm Muck (A10) (LPR 8) Reduced Vertic (F18)
Remarks:		Loamy attack (Ma)  Loamy attacky winters (F1)  Loamy Gleyed Metrix (F2)	Red Parent Material (TF2)
		Stratified Layers (A5) (LRR C) Depleted Matrix (F3)	Other (Explain in Remarks)
		1 cm Muck (A8) (LRR D) Redox Dark Surface (F6)	
VEGETATION - Use scientific names of plants.		Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8)	Indicators of hydrophytic vegetation and
VEGETATION - Use scientific names of prints.  Absolute Dominant Indicator	Dominance Test worksheet:	Thick Dark Surface (A12) Redox Depressions (F8)  Sendy Mucky Mineral (S1) Vernal Pools (F9)	undicators or nyorophysic vegetation and welland hydrology must be present,
Tree Stratum (Plot size:	Number of Dominant Species	Sendy Gleyed Metrix (S4)	unless disturbed or problematic.
1.	That Are OBL, FACW, or FAC:(A)	Restrictive Layer (if present):	
2	Total Number of Dominant	Туре:	
3.	Species Acrose All Strets:(B)	Depth (Inches):	Hydric Sall Present? Yes No
	Percent of Dominant Species	Remerks:	
Total Cover	That Are OBL, FACW, or FAC: (A/B)		
Sacting/Shrub Stratum (Plot size:)	Prayalation Index Worksheet:		
2	Total % Cover of: Multiply by:		
3.	OBL species x1 =	HYDROLOGY	
4.	FACW species x2=	Wetland Hydrology Indicators:	
5	FAC species x3 =	Primary Indicators (minimum of one required; check at thet analy)	Secondary Indicators (2 or more resulted)
≈ Total Cover	FACU species x4=	Surface Water (A1) Selt Cruet (B11)	Water Marks (B1) (Riverine)
Herb Stratum (Plot size: 10 FAL	UPL species × 5 ×	High Water Table (A2) Blotic Crust (B12)	Sediment Deposits (BZ) (Riverbse)
1 / 2/2	Column Totals: (A) (B)	Seturation (A3) Aquetic invertabrates (B13)  Water Marks (B1) (Nontiverine) Hydrogen Sulfide Odor (C1)	Drift Deposits (ES) (Riverine)
2 Aggree 30 PAC	Characterine Index - Diff -	Water Marks (B1) (Nontriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nontriverine) — Oxidized Přitzospheras along Livit	Drainage Patterns (610)  19 Roots (C3) Dry-Season Water Table (C2)
3	Prevalence index = B/A =	Drift Deposits (B3) (Nemriverine) Presence of Reduced fron (C4)	Crayfish Burrows (C8)
4	Dominance Test is >50%	Surface Soli Cracks (86) Recent from Reduction in Tilled So	
D	Prevalence Index is \$3.01	Inundation Visible on Aerial Imagery (87) Thin Muck Surface (C7)	Shallow Aquitard (D3)
7	Morphological Adaptations <sup>1</sup> (Provide supporting	Water-Stafned Leaves (B9) Other (Explain in Remarks)	FAC-Neutral Test (D5)
2	date in Ramarks or on a separate sheet)	Pleid Observations:	
a Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	Surface Water Present? Yes No Depth (Inches):	
Woody Vine Stratum (Plot size:)		Water Table Present? Yes No Depth (Inches):	
1	Indicators of hydric soil and wedland hydrology must	Saturation Present? Yes No Depth (Inches):	Wetland Hydrology Present? Yes No
2.	be present, unless disturbed or problematic.	Describe Recorded Data (stream gauge, monitoring well, sertal photos, previous inspect	ions), if available:
= Total Cover	Hydrophytic		
% Bare Ground in Herb Stratum	Vegetation Present? Yes No	Romarka:	
Remarks;		no indicates	
• "		No low	1
and the second s	,	Commence of the control of the contr	<u>en la majora da la la</u>

US Army Corps of Engineers