

2907 Harborview Drive, Gig Harbor, WA 98335 Phone: (253) 514-8952 Fax: (253) 514-8954

Technical Memorandum

To: Lis Soldano, Marysville 172nd Development LLC

File Number: 2300.0001

Date: March 15, 2022

- From: Matt DeCaro, Soundview Consultants LLC Rachael Hyland, Soundview Consultants LLC
- Re: Wetland and Fish and Wildlife Habitat Assessment File Review 1930, 2008, 2104, and 2124 172nd Street NE, Marysville, Washington 98271

Dear Ms. Soldano,

Soundview Consultants LLC (SVC) is supporting Marysville 172nd Development LLC with environmental planning for a 17.14-acre site located at 1930, 2008, 2104, and 2124 172nd Street Northeast in the City of Marysville, Washington (Figure 1). The subject property consists of six parcels situated in the Northwest ¹/₄ of Section 29, Township 31 North, Range 05 East, W.M (Snohomish County Tax Parcel Numbers: 31052900201200, 31052900201100, 31052900201900, 310529002020400, and 31052900200900). SVC conducted a file review of wetland and fish and wildlife habitat documentation for the subject property.

Figure 1. Subject Property Location.



Background Data

SVC conducted background research using Snohomish County and City of Marysville Geographic Information System (GIS) data, Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) and SalmonScape mapping tools, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), Washington Department of Natural Resources (DNR) water typing system, and Natural Resource Conservation Service (NRCS) soil survey (Attachment A).

The USFWS NWI map (Attachment A1), DNR stream typing map (Attachment A2 and A3), WDFW PHS map (Attachment A4), and WDFW SalmonScape map (Attachment A5) do not identify any potentially regulated wetlands, streams, or priority habitats or species on or within 150 feet of the subject property.

The City of Marysville stream and wetland inventory (Attachment A6) does not identify any potential wetlands or streams onsite; however, two potential wetlands are identified immediately offsite, adjacent to the southeast and southwest corners of the subject property. The Snohomish County critical areas map (Attachment A7) identifies one potential wetland on the western and southern portions of the subject property and extending offsite to the south. It should be noted that this potential wetland shape is based on remote sensing-based wetland models and not field verified. Additional potential wetland areas are identified offsite to the north, east, and west within 150 feet of the subject property.

The NRCS soil survey map (Attachment A8) identifies two soil series on the subject property: Custer fine sandy loam (13) and Kitsap silt loam, 0 to 8 percent slopes (27). Custer fine sandy loam is listed as partially (90 percent) hydric on the Snohomish County Hydric Soils List; additionally, as much as 5 percent of mapped areas may contain inclusions of hydric Norma soils (NRCS, n.d.). Kitsap silt loam, 0 to 8 percent slopes is listed as non-hydric, but as much as 5 percent of mapped areas may contain inclusions of hydric Norma soils (NRCS, n.d.).

Prior Studies

The subject property and adjacent areas within 200 feet were previously investigated by Sewall Wetland Consulting, Inc. for the presence of potentially regulated wetlands, streams, and fish and wildlife habitat between February and May 2017 and February and May 2019 (Attachment B). The results of these site investigations are documented in four critical area reports summarized below (Table 1). All four of the critical area reports have been verified by the City of Marysville (City) (Attachment C).

Current Snohomish County Tax Parcel Number	Critical Area Report	City of Marysville Review Letter
31052900200900	RE: Parcel #31052900200900 – Critical Area Report (Sewall Wetland Consulting, 2017)	Re: Sather – Critical Areas Confirmation, CAR 18001 (City of Marysville, 2018)
31052900201200	RE: Parcel #31052900201200 – Critical Area Report (Sewall Wetland Consulting, 2019a)	Re: CAR 19-008 "Ricardi" Wetland determination (City of Marysville, 2019)
31052900202400	RE: Parcel #31052900202400 – Critical Area Report (Sewall Wetland Consulting, 2019b)	RE: Shloredt Critical Areas Determination (CAR22-001) (City of Marysville, 2022)
31052900201100, 31052900201900, 31052900200800	RE: Parcels #31052900200800, #31052900201900, #31052900201100, & #31042900202600 – Critical Area Report (Sewall Wetland Consulting, 2021)	Re: Counsellor and Harvey Critical Areas Confirmation, CAR 21012 (City of Marysville, 2021)

Table 1. Summar	y of Subject Prop	perty Tax Parcels a	and Critical Area Re	ports and Reviews
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The site investigations concluded that no wetlands, streams, or buffers exist onsite. Wetland determinations were made using the routine approach described in the 1987 Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (USACE, 2010). Due to the presence of a disturbed plant community dominated by facultative species and mapped hydric soil (Custer series) onsite, the site investigations included hydrology monitoring during the growing season to determine if wetland hydrology criteria were met onsite. Several soil pits and piezometers were monitored on a weekly basis between February and May of 2017 and February and May of 2019, and in general no water table or saturation were observed within 12 inches of the soil surface during the monitoring efforts. Due to the lack of wetland hydrology throughout the growing season, it was determined that no wetlands were present onsite (Sewall Wetland Consulting, 2017, 2019a, 2019b, and 2021).

Onsite agricultural ditches are described in the critical area reports (Sewall, 2017, 2019a, 2019b, and 2021). The ditch system includes five ditches that extend north to south, four of which are onsite and one of which is immediately offsite adjacent to the property's western boundary. These ditches connect to a ditch extending east to west along the southern boundary of the subject property. This southern ditch then drains into an offsite ditch located near the southwest corner of the subject property and is oriented in a northwest to southwest direction.

Regulatory Considerations

The four prior critical area reports concluded that there are no wetlands, streams, or buffers onsite. All of the prior critical area reports (Sewall Wetland Consulting, 2017, 2019a, 2019b, and 2021) were confirmed by the City of Marysville in letters dated July 10, 2018 (*Sather – Critical Areas Confirmation CA 18001*), July 17, 2019 (*CAR 19-008 "Ricardi" Wetland determination*), December 7, 2021 (*Counselor and Harvey Critical Areas Confirmation CAR 21012*), and February 18, 2022 (*Shloredt Critical Areas Determination*) (City of Marysville, 2018; 2019; 2022; and 2022).

The City's confirmation letters identify the presence of the onsite ditches and generally state that alteration of the ditches will need approval or verification of non-jurisdictional status by the United States Army Corps of Engineers (USACE) and/or the Washington State Department of Ecology (WSDOE) due to their connectivity to the West Fork of Quilceda Creek offsite to the south of the subject property. [A DNR stream typing map depicting the proximity of the subject property to West Fork Quilceda Creek is provided in Attachment A4; the West Fork of Quilceda Creek is located at least 2,180 linear feet downgradient of the subject property]. The City's earliest confirmation letter (City of Marysville, 2018) identified that there is an existing agricultural ditch along the edge of the western boundary of tax parcel number 31052900200900. This letter states that per Marysville Municipal Code (MMC) 22E.010.190(2)(a), activities involving artificially created habitat, including drainage ditches, are exempt from the provisions of MMC 22E.010 (Critical Areas Management) provided they are conducted using best management practices.

USACE reviewed segments of the onsite ditch system in two approved jurisdictional determinations (AJDs) (Attachment D). NWS-2019-857 (USACE, 2019) reviewed the onsite, north-south ditch on the western boundary of tax parcel number 31052900200900 and the eastern extent of the east-west ditch on the southern boundary of tax parcel number 31052900202400. NWS-2021-151 (USACE, 2021a) reviewed the offsite ditch immediately adjacent to the western boundary of the subject property and the remaining length of the east-west ditch on the southern boundary of the east-west ditch on the southern boundary of the east-west ditch on the southern boundary of the subject property (Attachment E). The AJDs determined that the ditches were not regulated as waters of the U.S. The AJDs described the construction of the ditches for agricultural and stormwater conveyance and noted that flow within the ditches is likely ephemeral. Additionally, the AJDs described that the ditches are not relocated tributaries, were not excavated within a tributary, do not abut wetlands, and were not created from wetlands (USACE, 2019 and USACE, 2021a). NWS-2021-151 noted the connectivity of the ditch system to the West Fork of Quilceda Creek. A set of fish screens prevent fish from the West Fork of Quilceda Creek from traveling into this ditch system, and the Washington State Department of Fish and Wildlife (WDFW) considers the fish screens to be the end of a natural stream channel (USACE, 2021a).

Three of the north-south ditches onsite were not included in the USACE AJDs. However, these three north-south ditches drain to the east-west ditch on the southern boundary that was determined to be non-jurisdictional by USACE. In a December 2, 2008 memorandum from the Environmental Protection Agency (EPA) and USACE, joint guidance is provided that describes waters that are to be regulated under section 404 of the CWA (USACE, 2008). This memorandum was amended on February 2, 2012 where the EPA and USACE issued a final guidance letter on waters protected by the CWA. The 2012 guidance describes the following waters where jurisdiction would be asserted: 1) traditional navigable waters, 2) interstate waters, 3) wetlands adjacent to traditional navigable waters, 4) non-navigable tributaries of traditional navigable waters that are relatively permanent meaning they contain water at least seasonally (e.g. typically three months and does not include ephemeral waters), and 5) wetlands that directly abut permanent waters. The regulated waters are those associated with naturally occurring waters and water courses and not artificial waters (i.e. stormwater pond outfalls). The 2012 guidance identifies thirteen waters or areas where jurisdiction will not be asserted, including ditches that are excavated wholly in uplands, drain only uplands or non-jurisdictional waters, and have no more than ephemeral flow.

Historical aerial photos show that the site has been an agricultural site since at least 1954. The three north-south ditches are visible as linear features on aerial photographs and were likely artificially excavated to support drainage on the subject property. These ditches are located at least 2,180 linear feet from the West Fork of Quilceda Creek. USACE determined that the other onsite ditches likely

convey ephemeral flows, were not excavated within tributaries, did not abut wetlands, and were not created from wetlands. As artificially excavated features with ephemeral flows, the three north-south ditches are not likely to be considered waters of the U.S.

According to the City's confirmation letter for tax parcel numbers 31052900201100, 31052900201900, and 31052900200800 (City of Marysville, 2021), WSDOE reviewed the critical area report (Sewall, 2021) for this portion of the subject property and provided concurrence with the report's findings that there are no wetlands, streams, or buffers on this portion of the subject property. No other review by WSDOE of the prior critical area reports has been provided.

WSDOE regulates surface waters of the state under RCW 90.48 and WAC 173-201A for potential impacts to water quality. WAC-173-201A-020 provides definitions of surface waters of the state and states that surface waters of the state include:

"... lakes, rivers, ponds, streams, inland waters, saltwaters, wetlands and all other surface waters and water courses within the jurisdiction of the state of Washington."

The prior critical area reports (Sewall, 2017, 2019a, 2019b, and 2021) did not identify any wetlands or streams onsite. However, the onsite ditches are likely regulated as waters of the state by WSDOE because they convey surface waters and are connected to the West Fork of Quilceda Creek. Direct impacts to or in-water work within the ditches would therefore likely require permitting with WSDOE via an Administrative Order to ensure that the work meets state water quality standards.

Conclusions

No potentially regulated wetlands, streams, other fish and wildlife habitat conservation areas, or buffers were identified on the subject property in prior critical area reports (Sewall, 2017, 2019a, 2019b, and 2021). Several artificially excavated agricultural ditches were identified throughout the subject property. These ditches are part of one ditch system that drains offsite to the south and is connected to the West Fork of Quilceda Creek. Fish screens have been installed downgradient of the subject property to prevent fish access into the ditch system, and WDFW considers the fish screens to be the end of a natural stream channel (USACE, 2021a).

The City has reviewed the four prior critical area reports for the subject property (City of Marysville, 2018; 2019; 2021; and 2022) and verified that no wetlands or streams are present on tax parcels numbers 31052900200900, 31052900201200, 31052900201100, 31052900201900, 31052900200800, and 31052900202400. The City's letters generally state that review of the onsite ditches by USACE or WSDOE is needed prior to land disturbing activities that affect the ditches.

USACE has reviewed segments of the ditch system along the western boundary of tax parcel number 31052900200900, the southern boundary of the subject property, and immediately offsite to the west of the subject property in two AJDs. These ditch segments were determined to be non-jurisdictional and excluded from waters of the U.S. (USACE, 2019 and USACE, 2021a). Three additional onsite north-south ditches drain into the ditch segments determined to be non-jurisdictional by USACE but were not included in the USACE AJDs. These additional ditches are similarly artificially created and are not likely to be considered waters of the U.S. The ditches convey surface water and are likely regulated by WSDOE as surface waters of the state. Direct impacts or in-water work would therefore likely require permitting with WSDOE to ensure that the work meets state water quality standards.

If you have questions, please contact us at your earliest convenience.

Sincerely,

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Matt DeCaro Associate Principal

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Rachael Hyland // Senior Environmental Scientist

March 15, 2022

Date

March 15, 2022

Date

References

- City of Marysville. 2018. RE: Sather- Critical Areas Confirmation CAR 18001. Marysville, Washington. June 10, 2018.
- City of Marysville. 2019. RE: CAR 19-008 "Ricardi" Wetland Determination 4.55 acres site located at 1930 172nd St NE (AF #31052900201200). Marysville, Washington. July 17, 2019.
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- USACE and Environmental Protection Agency (EPA). 2012. Guidance on Identifying Waters Protected by the Clean Water Act. EPA/USACE. February 17, 2012.
- USACE. 2019. Interim Approved Jurisdictional Determination NWS-2019-857. Seattle, Washington. November 19, 2019.
- USACE 2021a. Approved Jurisdictional Determination Form (Interim) NWS-2021-151. Seattle, Washington. April 12, 2021.
- USACE 2021b. Reference: NWS-2021-151 Sather B, LLC (AJD Request). Seattle, Washington. April 13, 2021.

Attachment A – Background Information

This attachment includes a USFWS NWI Map (A1); DNR Stream Typing Map (A2 and A3); WDFW PHS Map (A4); WDFW SalmonScape Map (A5); City of Marysville Stream and Wetland Inventory (A6); Snohomish County Critical Areas Map (A7); NRCS Soil Survey map (A8); and Snohomish County Contours Map (A9).

Attachment A1 – USFWS NWI Map



Attachment A2 – DNR Stream Typing Map



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Attachment A3 – DNR Stream Typing Map



Attachment A4 – WDFW PHS Map



Attachment A5 – WDFW SalmonScape Map





Attachment A6 – City of Marysville Stream and Wetland Inventory

Soundview Consultants

Bureau of Land Management, Esri Canada, Esri, HERE, Garmin,

category 3 - 75' buffer



Attachment A7 – Snohomish County Critical Areas Map

Attachment A8 – NRCS Soil Survey Map





Attachment A9 – Snohomish County Contours Map



Sewall Wetland Consulting, Inc.

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

September 19, 2017

Land Technologies, Inc. 18820 3rd Ave NE Arlington WA 98223

RE: Parcel #31052900200900 – Critical Area Report City of Marysville, Washington SWC Job #16-187

This report describes our observations of any jurisdictional wetlands, streams or buffers on or within 200' of (Parcel #31052900200900) located on the south side of SR 531 in the City of Marysville, Washington (the "site"). The site is located in Section 29, Township 31 North, Range 5 east of the W.WM.

The site is an irregular shaped 4.42 acre agricultural property used for growing hay, corn and other crops.

METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site between February and May 30 of 2017.

The site was reviewed using methodology described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), and the *Western Mountains, Valleys and Coast region Supplement* (Version 2.0) dated June 24, 2010, as required by the US Army Corps of Engineers.



Given the mapped Custer soil series on the site, hydrology monitoring in the early growing season was deemed the only way to determine if wetland hydrology exists on this agricultural field.

Previous information from NRCS indicates that there is such a high degree of disturbance to historical hydrology of the Custer soils in the vicinity of the site that the only sure determination if the soil was hydric was to observe wetland hydrology in the early growing season over the required period of time. The presence of wetland hydrology is the driving force behind wetland presence, without wetland hydrology, an area does not meet wetland criteria. Therefore, only areas on the site that contain all three parameters during the early growing season meet the definition of a wetland. Areas that do not have hydrology do not meet wetland criteria and are considered upland.

In order to determine what portion of the site contained wetland hydrology, an analysis of wetland hydrology was conducted throughout the site.

Site Hydrology Monitoring Methods

A total of 14 data points (soil pits) were sampled to determine if wetland vegetation, soils and hydrology was present on the site within 12" of the soil surface.

The site was visited between February 21th and May 30 of 2017 to collect hydrology data.



Rainfall in the region for the period from January-May for 2017 was well above normal rainfall as is shown in the graph on page 3 of this report. As a result, we would expect the sites hydrology to be wetter than normal in the period that we did the monitoring of the data points.

At each sample point soil pit was excavated -18" deep. At each pit observations of the level of standing water and/or soil saturation (if any) were recorded.

OBSERVATIONS

Existing Site Documentation.

Prior to visiting the site, a review of several natural resource inventory maps was conducted. Resources reviewed included the City of Marysville Critical Areas map, National Wetland Inventory Map, the NRCS Soil Survey online mapping and Data, WADNR Fpars stream mapping and the WDFW Priority Habitats mapping website.

City of Marysville Critical Areas Map

According to the City of Marysville Critical Areas Maps, there is a wetland located along the south end of the site. This corresponds possibly to old drainage ditches that previously existed on the site.



City of Marysville Critical Areas Map

National Wetlands Inventory (NWI)

The NWI map depicts no wetlands or streams on the site. A scrub-shrub wetland is indicated to the southeast of the site over 800' away.



Above: NWI Map of the area of the site.

Soil Survey

According to the NRCS Soil Mapper website, the site is mapped as Custer fine sandy loam. According to Soil Survey of Snohomish County Area, Washington (Debose and Klungland, 1983) the site is mapped as Custer fine sandy loams. Custer soils (soil unit #13) are poorly drained soils formed in outwash plains. According to local NRCS scientists, Custer soils have such a high degree of disturbance to historical hydrology in the vicinity of the site that the only sure determination if the soil was hydric was to observe wetland hydrology in the early growing season over the required continuous period of time.



Above: NRCS Soil map of the study area.

WADNR Fpars

The WADNR Fpars stream typing map for the site there are no streams on or near the site. The closest mapped stream is over 1,300' southwest of the site.



Above WDNR Fpars Stream Typing map.

WDFW Priority Habitats

According to the WDFW Priority Habitats mapping website, there are no priority habitats on or near the site. The closest mapped priority habitat is the same wetland depicted on the NWI map over 800' from the site.



Above: WDFW Priority Habitats Map of the site

Field observations

Uplands

The site is a relatively flat agricultural property with a slight slope to the south west. A gravel driveway border the east side of the site, a large agricultural field to the south, a drainage ditch along the western side of the site, and SR 531 to the north of the site.

The site is plowed and planted with either hay or crops like corn on an annual basis. At the time of our sampling the field was fallow and sparsely vegetated with a mix of weedy species and grasses including dead nettle (*Lamium* spp), dandelion (*Taraxacum officinale*), catch ear (*Hypochaeris radicata*), orchard grass (*Dactylis glomerata*), quackgrass (*Agropyron repens*), and ryegrass (*Lolium perenne*).

Soil pits excavated throughout the site generally consist of sandy loam soils similar to the Custer profile, with an A-horizon of sandy loam with colors of 10YR 3/2 and 2/2 down to 8-10" and an B-horizon of loamy sand with a color of 10YR 3/2-3/6.

During all of the site visits and review of all data points, no area on the site was found to contain wetland hydrology (see attached hydrology monitoring results). All soils pits were found to be moist during all site

visits with some saturation at depths of -14" of deeper. Given the extra wet spring we would expect saturation to be even deeper in a normal rainfall year.



Above: Data point locations on the site

Conclusion

No wetlands, streams or buffers exist on the site.

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 <u>esewall@sewallwc.com</u>.

Sincerely, Sewall Wetland Consulting, Inc.

7 Sent

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.

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City of Marysville Municipal Code

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8 10712 3/4		in sul
Type: C=Concentration, D=Depletion, F	RM=Reduced Matrix, CS=Covered or Coated Sand Gr	ains. ² Location: PL=Pore Lining, M=Matrix,
ydric Soll indicators: (Applicable to	all LRRs, Uniose otherwise noted.)	Indicators for Problematic Hydric Solis :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Cother (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
Uspleted Below Dark Surface (A11)	Uepieted Matrix (+3)	Indicators of hudenphilis montation and
Inick Dark Surface (A12)	Kedox Dark Surface (F6)	mucators of nydrophytic vegetatori and
Sandy MUCKY Mineral (S1) Sandy Claused Metrics (S4)	Departed Uark ourrece (**) Reday Depressione (58)	weatho nychology must be present, unless disturbed or problematio
OURLY ORYOU HABITS (04)		
estricute Leyer (n present).		
type.		
Depth (inches):		Hydric Soil Present? Tes NO
lemarks:	Custan souts	
YDROLOGY Yeland Hydrology Indicators:	Custan souts	
YDROLOGY Yelland Hydrology Indicatora: mary Indicatora (minimum of one requ	Custur souts	Secondary Indicators (2 or more required)
YDROLOGY YDROLOGY Wetland Hydrology Indicators: Yrimary Indicators (minimum of one regy Surface Water (A1)	Cister Scuts ired check all that apply) Water-Stained Leaves (BD) (except MLF	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
YDROLOGY Vetland Hydrology Indicators: Trimary Indicators (minimum of one requ Surface Water (A1) Hich Water Table (A2)	Cristen Souts ired check all that apply) 	Secondary Indicators (2 or more required)
YDROLOGY Yetiand Hydrology Indicatora: htmary Indicatora (minimum of one redu Surface Water (A1) High Water Table (A2) Saturation (A3)	Cushin Souts ired check all that apply) Water-Stained Leaves (BB) (except MLF 1, 2, 4A, and 4B) Salt Crust (B11)	Secondary Indicators (2 or more required) RAWater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
YDROLOGY YeBand Hydrology Indicators: Trimary Indicators (minimum of one redu 	Cushin Souls ired, check all that apply) Water-Stained Leaves (B9) (except MLF 1, 2, 4A, and 4B) Sait Cruss (B11) Aquetic Inverterates (B13)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOGY Vetland Hydrology Indicators: Trimary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Decosts (B2)	Cushun Soulds ired. check all that apply) Water-Stained Leaves (B9) (except MLF X. AA, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrocen Sulfiele Odor (C1)	Secondary Indicators (2 or more required)
Iemarks: IPROLOGY Vetland Hydrology Indicators: timary Indicators (minimum of one regu 	Cushun Sculs wed. check all that apply) 	Secondary indicators (2 or more required) KA
YDROLOGY Yetiand Hydrology Indicators: htmary Inducators (minimum of one redu Surface Water (A1) — High Water Table (A2) — Saturation (A3) — Water Marks (B1) — Sediment Deposits (B2) — Drift Deposits (B3) Ataal Mat or Crust (B4)	Cushin Souls ired: check all that apply) — Water-Stained Leaves (B8) (except MLF 1, 2, 4A, and 4B) — Sali Crust (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulfide Odor (C1) — Oxidized hizospheres along Living Roo — Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required) RA
YDROLOGY Vetland Hydrology Indicators: Trimary Indicators (minimum of one redu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Alige Mat or Crust (B4) Iron Deposits (B5)	Cushun Sci1s ired, check all that apply) Water-Stained Leaves (B9) (except MLF 1, 2, 4A, and 4B) Sah Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced fron (C4) Recent Iron Reductor in Titler Soils (C6)	Secondary Indicators (2 or more required) RA
Iemarks: IDROLOGY IeBand Hydrology Indicators: timary Indicators (minimum of one regu- Sufaco Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surbare Sol Cracks (B6)	Cushun Sw1s ired. check all that apply) 	Secondary Indicators (2 or more required) A Water-Stained Leaves (B9) (MLRA 1, 2, 4 A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aguitard (03)) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY Yetiand Hydrology indicators: trimary indicators (minimum of one regy Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Jourdation Visithe on Aariel Imagener	Cushun Swi1s wed. check all that apply) — Water-Stained Leaves (BB) (except MLF 1, 2, 4A, and 4B) — Sah Crust (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulfide Odor (C1) — Oxidized Rhizospheres along Living Roo — Presence of Reduced from (C4) — Recent from Reduction in Titled Soils (C6 — Stunted or Stressed Plants (D1) (LRR A) (B7)	Secondary Indicators (2 or more required) AWater-Stained Leaves (B9) (MLRA 1, 2,
VDROLOGY Velland Hydrology Indicatora: Trimary Indicatora (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Asriel Imagery	Cushun Sci1s ired, check all that apply) 	Secondary Indicators (2 or more required) RA
YDROLOGY VeBand Hydrology Indicators: Trimary Indicators (minimum of one resu- Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Sol Cracks (B6) Inundation Visible on Aerial Imageny Sparsely Vegetated Concave Surfac	Cushu Sw1s ired. check all that apply) 	Secondary Indicators (2 or more required) RA
YDROLOGY Vetland Hydrology Indicators: htmary Indicators (minimum of one regu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Saturation (A3) Drift Deposits (B3) Drift Deposits (B3) Drift Deposits (B3) Surface Soil Cracks (B6) Inundation Visible on Aarial Imagery Sparsely Vegetated Concave Surface Vegeta Nation Sectors	Cushun Scuts ired, check all that apply) — Water-Stained Leaves (B9) (except MLF 1, 2, 4A, and 4B) — Sal Crusi (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulfide Odor (C1) — Oxideed Rhicospheres along Living Roo — Presence of Reduced Iron (C4) — Recent Iron Reduction in Tilled Soils (C6 — Stunied or Stressed Plants (D1) (LRR A) (B7) — Other (Explain in Remarks) ta (B6)	Secondary Indicators (2 or more required) KA
YDROLOGY Yetiland Hydrology indicators: htmary indicators (minimum of one redu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Saturation (A3) Drift Deposits (B3) Drift Deposits (B3) Argel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surfac Teid Observations: Inurdace Water Present? Yes	Cushun Swits ired: check all that apply) — Water-Stained Leaves (B0) (except MLF 1, 2, 4, and 4B) — Sait Crust (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulfide Odor (C1) — Oxidized Rhizospheres along Living Roo — Presence of Reduced Iron (C4) — Recent Iron Reduced Iron (C4) — Stunted or Stressed Plants (D1) (LRR A) (B7) — Other (Explain in Remarks) a (B8) _ No Depth (inches):	Secondary Indicators (2 or more required) NA
PROLOGY Peterand Hydrology Indicators: Timary Indicators (minimum of one resul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Aigel Met or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surfac Ield Observations: Water Table Present? Yes	Cushu Sw1s ired. check all that apply) 	Secondary Indicators (2 or more required) CA
VDROLOGY Vetland Hydrology Indicators: httmary Indicators (minimum of one regu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Saturation (A3) Urater Marks (B1) Mater Marks (B1) Saturation (Xable (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inurdation Visible on Aerial Imagery Sparsely Vegetated Concave Surfac Teld Observations: Surface Water Present? Yes Water Table Present? Yes	C Stur S & 15 ired. check all that apply) 	Secondary Indicators (2 or more required) A A, and 4B Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) and Hydrology Present? Yes No
YDROLOGY Yeliand Hydrology Indicators: trimary Indicators (minimum of one redy Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agai Mat or Crust (B4) Iron Deposits (B5) Sufface Soil Cracks (B6) Inundation Visible on Aeriel Imagery Sparsely Vegetated Concave Suffac Teid Observations: Sufface Nation Present? Yes Sufface Tobe Present? Yes Sufface Tobe Present? Yes Sufface Data Present? Yes Sufface Data Present? Yes Sufface Capillary fringe) Beacher Beacher Aurice	Cushun Swi1s ired: check all that apply)	Secondary Indicators (2 or more required) A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Sesson Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) and Hydrology Present? Yes No f evailable.
YDROLOGY Vetland Hydrology Indicators: Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surfac Bidrace Water Present? Yes Staturation Present? Yes Staturation Present? Yes Staturation Recorded Data (stream gauge.	Cushu Sci1s ired. check all that apply)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shaltow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Monds (D6) (LRR A) Frost-Heave Hummocka (D7) and Hydrology Present? Yes No
YDROLOGY Wetland Hydrology Indicators: Stimary Indicators (minimum of one requestion) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Valiface Water Present? Yes Valer Table Present? Yes Staturation Present? Yes Derize Recorded Data (stream gauge.)	C Stur S Sur S ired. check all that apply) 	Secondary Indicators (2 or more required) CA
YDROLOGY Vetland Hydrology Indicators: Trimary Indicators (minimum of one requestion) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Inon Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Asrial Imagery Sparsely Vegetated Concave Surface Velet Table Present? Yes Sutration Present? Yes Sturation Present? Yes Staturation Present? Yes Staturation Present? Yes Staturation Present? Yes Staturation Present? Yes Weter Table Recorded Data (streem gauge. Veters: Yes	Cushu Sw1s wed. check all that apply) 	Secondary Indicators (2 or more required) AA
YDROLOGY Velland Hydrology Indicatora: > Surface Water (A1)	Cushu Suls ired. check all that apply) 	Secondary Indicators (2 or more required) RA
YDROLOGY Yetland Hydrology Indicators: Timary Indicators (minimum of one resu	Cushu Sw1s ired. check all that apply) 	Secondary Indicators (2 or more required) RA

Western Mountains, Valleys, and Coast - Interim Version

Project/Sile: <u>Scitter</u> Jtorite	City/C	ounty:	WILL SI	ampling Date: <u><u><u><u></u></u><u><u></u><u><u></u></u><u></u><u></u><u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u></u></u>
Applicant/Owner:		********	State: WIT Se	ampling Point
Investigator(s): <u>CA</u> SCWGI	Sacik	m, Township, Range: _	329 - 3	INCOL
Landiorm (hillslope, terrace, etc.):	Loca	relief (concave, conve	x, none).	Stope (%):
Subregion (LRR)		Lon	9:	Datum:
Soli Map Unit Name: Cvstch			NWI classification	an:
Are climatic/ hydrologic conditions on the site typical fo	r this time of year? Y	es No	(If no, explain in Rem	erks.)
Are Vegetation Soit, or Hydrology	significantly distur	oed? Are "Norm	al Circumatarices* pres	went? Yes <u>No</u> No
Are Vegetation Soil, or Hydrology	naturally problem	nic? (if needed,	explain any answers i	n Remarks.)
SUMMARY OF FINDINGS - Attach site m	ao showing san	nling noint locati	ions, transacts, i	moortant features, etc
Hydrophylic Vegetation Present? Yes	No	is the Sampled Area		
Hydric Sol Present? Yes	No to	within a Wetland?	Yes	No
venand Hydrology Present? Yes	NO_K			
- Above Normal	rawfy	Λ		
plowed + cult	inte F	ald		
VEGETATION - Line acientific names of n	lante			
	Absolute Doa	inant Indicator Dor	nimance Test worksh	
Inter Statum (Plot size:)	% Cover Spe	ties? Status Nun	aber of Dominant Spen	ies
1		The	t Are OBL, FACW, or I	FAC: (A)
2.		Tota	al Number of Dominant	1
3.		Spa	cies Across All Strata:	(B)
4.		Per	cent of Dominant Spec	ias
Secting/Shrub Stratum (Plot size:)	* To	al Cover That	t Are OBL, FACW, or F	FAC: (A/B)
1		Pre	valence Index works!	leot:
2			Total % Cover of:	Multiply by:
3		08	. species	x1 =
4.		FAC	W species	x2 =
5		FAC	species	x3*
Herb Stratum (Plot size:)		al Cover FAC	O species	×4=
1. Twatco officiale	15	NI	species	
2			ATRI 1005.	
3.			Prevalence index =	B/A +
4		Hyd	Irophytic Vegetation	indicators:
5.			Dominance Test is >3	0%
6.			Prevalence Index is \$	3.0'
7			atorphological Adapta data in Remarks or	uons (Provide supporting on a separate sheet)
8			Watiand Non-Vascula	r Plants ¹
¥			Problematic Hydrophy	tic Vegetation' (Explain)
11		1'ind	icators of hydric soll ar	d wetland hydrology must
· · · ·	 Mat s	et Cover	wesent, unless disturb	ed or problematic.
Woody Vine Stratum (Ptot size:)	~ 10a			
1		Hyd	rophytic	/
2.		Veg Pre	etellori Beni(? Ya=	No
% Rate Count in Link Stratum	= Tot	al Cover		
Remarks:		_		

Depth _	Matrix Color (moint)		Redox Features	Taviture Bornarite
a	101110000	7	<u></u>	Sinda 1
	1041051			
18	2.54 4	<u> </u>		10mg sand
'Type: C=Con	centration, D=Depi	etion, RM=Re	duced Matrix, CS=Covered or Costed Send G	rains. ² Location: PL=Pore Lining, M=Matri
nyana seli in	anauna: (yhhijia)		Re, united administration	indicators for Problematic Hydric Soli
	NT)		Sandy Redox (S5)	2 cm Muck (A10)
Histic Epip	redon (A2)		Stripped Matrix (S8)	
Slack Hist	ic (A3)		Loamy Mucky Mineral (F1) (except MLRA 1)Other (Explain in Remarks)
Hydrogen	Sulfide (A4)		Loamy Glayed Matrix (F2)	
Depleted i	Below Dark Surface	(A11)	Depleted Matrix (F3)	
Thick Dari	Surface (A12)		Redox Dank Surface (F6)	*Indicators of hydrophytic vegetation and
Sandy Mu	cky Mineral (S1)		Depleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gle	ryed Matrix (S4)		Redox Depressions (F8)	unless disturbed or problematic.
Restrictive La	yer (il present):			
Type:				
Denth (inch	an':			Shudda Gall Desaura Yan Ala
Remarks:	Y		say coshe so	Water and Presence Tes No.
Remarks: IYDROLOG Weband Hydr	Y biogy indicators:		saly cushe su	Water and Freedory Tes No.
Permanks: IYDROLOG Wethand Hydr Primary Indica	Y sicgy Indicators: tora (minimum of or	ie required; ci	saly coshe sc heck all that apply)	Secondary Indicators 12 or more result
IVDROLOG Weband Hydr Primery (odice Surface W	Y biogy Indiontora: tora (minimum of or sater (A1)	ne required, ci	Saly Coshi Su heck all that apoly) Water-Stained Leaves (89) (except Mil	Secondary Indicators (2 or more result RA
IVDROLOG Welland Hydr Primery Indical Surfece W High Wata	Y ology Indicators: Iora (minimum of or Ister (A1) r Table (A2)	ne required, c	teck at litest apply) - Water-Steined Leaves (BB) (except fill 1, 2, 4A, and 4B)	Secondary Indicators (2 or more read) RA Water-Stained Leaves (89) (MLR 4.4. and 48)
IVDROLOG Weßand Hydr Primery Indica Surface W High Wate Saturation	Y biogy Indicators: Iora (minimum of or ster (A1) Ir Table (A2) (A3)	re required, c	heck all that apply) - Water-Stained Leaves (80) (except ML 1.2.4A, and 48) - Set Cruss (811)	Secondary Indicators (2 or more result RA
IVDROLOG Weisend Hydr Primery Indica Surfece W High Water Water Ma	Y slogy indicators: izra (minimum of or siter (A1) r Table (A2) (A3) (A3) ta (B1)	ne required, c	heck all that apply) - Water-Stained Leaves (89) (except ML 1, 2, 4A, and 48) - Sait Crust (811) Aquatic Invertificates (813)	Secondary Indicators (2 or more result Secondary Indicators (2 or more result RA
HYDROLOG Weisend Hydr Primer: Instea Surface W High Wate Saturation Settiment	Y ology Indicators: kors (minimum of or biter (A1) (A3) (A3) (A3) benosis (B1) Denosis (B2)	re required, c	heck all that apply) - Water-Stained Leaves (B8) (except fill 1, 2, 4A, and 4B) - Sett Crust (B11) - Aquatic Invertebrates (B13) Hydropes Staffic Otry (C1)	Profile and Presence Tes No Secondary Indicators (2 or more result A
IYDROLOG Welland Hydr Primery Insites — Surface W — High Wells — Saturation — Water Mai — Sediment	Y biogy indicators: tora (minimum of or tater (A1) in Table (A2) (A2) ta (B1) Deposite (B2) eter (B3)	re required, c	heck all that apply) - Water-Steined Leaves (80) (except ML 1, 2, 4A, and 48) - Set Cruck (811) - Aquetic Invertebrates (813) - Hydrogen Suifide Odor (C1) - Oxidized Divisor Bana allows Lines Bo	Pyone sol presence integration (22) Secondary Indicators (2 or more require A, and 48) Drainage Patients (810) Dry-Seeson Water Table (C2) Seturation Visible on Aeriel Image ots (C3)
IVDROLOG WeBand Hydr Primery Indica Surface W High Water Saturation Water Maa Sediment Drift Depo Alord Hard	Y siogy indicators: total (ninimum of or total (A1) r Table (A2) (A3) tas (B1) Deposits (B2) sits (B3) or Crave (B4)	re required, c	Sachy Crish Sc heck all that apply) Water-Steined Leaves (89) (except fill 1, 2, 4A, and 4B) Sat Crust (811) Aquatic Invertebrates (813) Hydrogen Sulide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Bertung (Inc) (C1)	Pyone sol present Tes No Secondary Indicators (2 or more result RA
HYDROLOG Weisand Hydr Primery Indice Surface W High Wate Saturasion Water Mau Sediment Drift Depo Agai Mat	Y ology Indicators: Icra (minimum of or viter (A1) r Table (A2) (A3) rts (B1) Deposits (B2) eits (B3) or Crust (B4) 	ne required. C	heck all that apply) Water-Steined Leaves (88) (except fill 1, 2, 4A, and 48) Set Cruss (1811) Aquatic Invertebrates (1813) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Presence of Teduced Iron (C4)	RA
IVDROLOG Wetland Hydr Entracy (totka Surface W Sutrasion Water Mau Sedmeni Drift Depo Adgei Mat Ten Depo	Y biogy indicators: tater (A1) r Table (A2) (A2) ta (B1) Deposite (B2) sits (B3) or Crust (B4) site (B5)	ie required, c	Sachy Cristing Science (Se) (except ML 1, 2, 4A, and 4B) Set Crust (B11) Aquatic Invertebrates (B13) Hydrogen Suifide Odor (C1) Oxidized Rhizospherea slong Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Titlet Soile (C Sector Iron Reduction in Titlet Soile (C) Sector Iron Reduction Iron Iron (Science Iron Reduction Iron Reduction Iron Reduction Iron Iron Reduction Iron Reduct	Profile and Preasing Tes No Secondary Indicators 12 or more result RA Water-Stained Leaves (RB) (MLR) AA, and 48) Drainage Patterns (B10) Dy-Seeson Water Table (C2) Seturation Visible on Aeriel Image ots (C3) Geomorphic Pasition (D2) Shallow Aquitard (D3) 6) FAC-Neutral Test (D5)
HYDROLOG Welsand Hydr Primery Indices Surface W High Wete Saturation Water Ma Sediment Drift Depo Agei Mat Iron Depo Surface S	Y siogy indicators: total (minimum of or total (minimum of or total (A1) r Table (A2) (A3) trable (A2) (A3) trable (A2) (A3) trable (A2) dista (B3) or Crust (B4) site (B4) site (B4) pi (B5) pi (Cracks (B6)	ne noqured, c	Sachy Cristian Sic heck all that apply) Water-Steined Leaves (89) (except ML 1, 2, 4A, and 48) Sath Crust (B1) Aquatic Invertebrates (813) Hydrogen Sulide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduced Iron (C4) Recent Iron Reduced Iron (C4) Recent Iron Reduced Iron (C4) Recent Iron Reduced Iron (C4) Sturied or Stressed Plants (D1) (LRR /	Pyone sol present Tes No Secondary Indicators (2 or more result RA Wate-Stained Leaves (BP) (MLR AA, and 48) Drainage Patterns (B10) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aeriel Image ots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) 6) FAC-Neutral Test (D5) A) Relater Ant Mounds (D6) (LRR A)
IVDROLOG Wetsand Hydr Primery Insites Surface W High Wate Saturation Weter Has Sediment Drift Depo Agei Mat Iron Depo Surface S Surface S Inundation	Y ology Indicators: Izal. (Ininimum of or Izabie (A1) r Table (A2) (A3) r Table (A2) (A3) r Table (A2) eits (B3) or Crust (B4) eits (B3) or Crust (B4) eits (B5) Visible on Aerial In	negery (87)	Savy CrsM Sc heck all that apply) Water-Steined Leaves (88) (except ML 1, 2, 4A, and 48) Set Crust (811) Aquatic Invertebrates (813) Hydrogen Sutifice Cobr (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tillet Solis (C Stunded or Stressed Plants (D1) (LRR / Other (Explain in Remarks)	Protectory Indicators / Los No Secondary Indicators /2 or more result RA Water-Stained Leaves (B9) (MLR 4A, and 4B)
IVDROLOG Wetland Hydr Primery Indize Surface W Sutration Sutration Drift Depo Adget Mat Iron Depo Surface S Jundation Spansely N	Y biogy indicators: rater (A1) r Table (A2) (A3) ta (B1) Deposite (B2) eits (B3) or Crust (B4) sits (B5) of Crasts (B6) of Crasts (B6) visation Aertai in /egetated Concave	ne required, c negery (87) Surface (86)	Sachy Cristing Science Scienc	Profile Sol Present? Tes No NoN No
HYDROLOG Welland Hydr Enimery Indice Surface W High Wete Seturation Weter Mai Sectiment Drift Depo Algel Mat Iron Depo Surface S Jundation Spersefy Y Field Observa	Y siogy indicators: siogr indicators: ter (A1) r Table (A2) (A3) ter (A1) Deposits (B2) sits (B3) or Crust (B4) sits (B3) of Cracks (B8) sits (B3) sits (B3) of Cracks (B8) sits (B3) sits (B3)	ne required, cl negery (87) Surface (88)	Sachy Crisht Sic heck all that apply) 	Pyteric sol presence Tes
TyDROLOG Welsand Hydr Primery Inside Surface W High Wels Saturation Weter Mai Sediment Drift Depo Agei Mat Inn Depo Surface S Inundation Spersety V Field Observe Water	Y slogy indicators: Ioral (Ininimum of or Ioral (Ininimum of) Inter (A1) r Table (A2) (A3) r Table (A2) (A3) Iorable (B4) sits (B4) sits (B4) sits (B4) sits (B5) Visible on Aerial in /egetade Concave sitors: Present? Yeesent? Yeesent? Yeesent? Yeesent?	negery (87) Surface (88) 16 No	Sauly Cristian Size Sauly Cristian Size Water-Stained Leaves (89) (except ML 1, 2, 4A, and 48) Sat Crust (811) Aquatic Invertebrates (813) Hydrogen Sutifice Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduced Iron (C4) Stanted or Stressed Plants (D1) (LRR / Other (Explain in Remarks) Depth (inches):	Pyone sol present/ 1es No Secondary Indicators (2 or more neuld RA Wate-Stained Leaves (B9) (MLR 4A, and 4B)
Pype (Internet Section 2014) Primery Instead Surface W High Water Surface W Surface Section 2014 Surface Section 2014 Surface Section 2014 Surface Section 2014 Iron Depo Surface Section 2014 Surfac	Y biogy indicators: rater (A1) r Table (A2) (A3) ta (B1) Deposite (B2) aits (B3) of Crust (B4) site (B5) of Crust (B4) site (B5) of Crust (B4) site (B5) of Crust (B4) visite on Aerial in /egetated Concave sitons: Present? Ye	negery (87) Surface (86) re No	teck all list apply) Water-Stained Leaves (80) (except ML 1,2,4A, and 48) Set Crust (811) Aquatic Invertebrates (813) Hydrogen Sulfide Odor (C1) Oxidized Rhizospherea along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilber Soils (C Stunied or Stressed Plants (D1) (LRR / Other (Explain in Remarks) Depth (inches): Depth (inches):	Pyone sol present Tes
HYDROLOG Welland Hydr Primery Indice Surface W High Wete Seturation Water Mai Sediment Drift Depo Aigel Mat Iron Depo Surface S Inundation Sperwery \ Field Observe Water Table P	Y siogy indicators: siogr inhimum of or teter (A1) r Table (A2) (A3) teter (A1) Deposite (A2) (A3) teter (A1) Deposite (B2) site (B3) of Cracks (B8) of Cracks (B8) of Cracks (B8) of Cracks (B8) visible on Aerial in resent? Ye resent? Ye	negery (87) Surface (88) rs No rs No	Saving Cushing Sec. Saving Cushing Sec. Saving Cushing Sec. Saving Cushing Sec. Saving Sec.	Protection of present? Tes
HYDROLOG Welsand Hydr Enimery (roltos	Y slogy indicators: iotal (Inkinium of or ister (A1) r Table (A2) (A3) r Table (A2) (A3) r Table (A2) (A3) or Crusk (B4) sits (B3) or Crusk (B4) sits (B3) or Crusk (B4) sits (B5) of Cracks (B8) Visitic on Aerial in /resent? Ye resent? Ye resent ?	negery (87) Surface (88) Is No Is No	Savy Cush Sc back all that apply) Water-Steined Leaves (89) (except ML 1, 2, 4A, and 48) Sat Crust (811) Aquatic Invertebrates (813) Hydrogen Sulide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Rocent Iron Reduction in Titlet Solie (C Stunied or Stressed Plants (D1) (LRR / Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Sultice (inches):	Profile and Present? 1es No
YDROLOG Welland Hydr Entmery (nolse Surface W High Wete Saturation Weter Mai Sediment Drift Depo Agei Mat Iron Depo Surface S Inundation Surface S Jundation Field Observe Surface Water Water Table P Saturation Pre- Saturation Pre-	Y slogy indicators: Iozii (Inkimum of or ister (A1) r Table (A2) (A3) r Table (A2) (A3) r Table (A2) (A3) or Crust (B4) sits (B3) or Crust (B4) sits (B5) of Crusts (B8) Visitio on Aerisi in Vegetade Concave stors: Present? Ye sent? Ye sent ? Ye sent ?	negery (87) Surface (88) re No re No re No re No	Savy CrsM 5 c Water-Steined Leaves (89) (except ML 1, 2, 4A, and 48) Set Crust (811) Aquatic Invertebrates (813) Hydrogen Sutifice Odor (C1) Oridized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Rosent Iron Reduction in Tillet Solie (C Stunied or Stressed Plants (D1) (LRR / Other (Explain in Remarks) Depth (inches): Suterial photos, previous inspections)	Profile sol Present? Tes
Remarks: HYDROLOG Welland Hydr Primery Indica Surface W High Wate Saturation Water Mai Sediment Drift Depo Agel Mat Iron Depo Surface Si Inundation Sourdace Si Inundation Sourdace Water Water Table Pe Saturation Pre Saturation Pre Saturation Pres Saturation	Y slogy indicators: Iota (Inkimum of or ister (A1) r Table (A2) (A3) r Table (A2) (A3) r Table (A2) (A3) or Crust (B4) site (B3) or Crust (B4) site (B5) or Crust (B5) site (B5)	nagery (87) Surface (88) Is No Is No Is No Is No	Savy CrsM Sc heck all that apply) Water-Steined Leaves (89) (except ML 1, 2, 4A, and 48) Sat Crust (811) Aquatic Invertebrates (813) Hydrogen Sulide Odor (C1) Oxidized Rizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Titlet Solis (C Stunied or Stressed Plants (D1) (LRR / Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Weat	Protectory Instantory Instended Instantory Instantory Instantory Instantory Ins
Popp (new second s	Y ology indicators: Iozii (Inkimum of or ister (A1) r Table (A2) (A3) r Table (A2) (A3) r Table (A2) or Cruck (B4) or Cruck (B4) or Cruck (B4) sits (B5) or Cruck (B4) sits (B5) Visitio on Aerisi in Visitio on Aerisi (B4) Visitio	negery (87) Surface (88) re No re No re No re No	Savy CrsM 5 c Mater-Steined Leaves (89) (except ML 1, 2, 4A, and 48) Set Crust (811) Aquatic Invertebrates (813) Hydrogen Sutifice Odor (C1) Oridized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Rocent Iron Reduction in Tillet Solis (C Stunted or Stressed Plants (D1) (LRR / Other (Explain in Remarks) Depth (inches): Suter (Explain in Remarks)	Protectory Indicators / Tes No Secondary Indicators /2 or more result RA Wate-Stained Leaves (89) (MLR 4A, and 48) Drainsge Patients (810)
IVDROLOG Welsand Hydr Enmer(is: Surface W High Wate Surface W High Wate Surface S Surface S Innet(Depo) Aigdi Mat Iron Dapo Aigdi Mat Iron Dapo Aigdi Mat Iron Dapo Sparsely N Field Observe Surface Surf	Y slogy indicators: slogy indicators: fater (A1) r Table (A2) (A3) tate (A1) r Table (A2) (A3) tate (B1) Deposite (B2) sits (B3) or Crust (B4) sits (B5) of Crust (B4) sits (B5) of Crust (B4) sits (B5) visitile on Aerial in resent? Ye resent? Ye resent ?	negery (S7) Surface (B6) re No re No gauge. sportb	Sachy Cushing Sci beck all that apply) Water-Stained Leaves (BB) (except ML 1, 2, 4A, and 4B) Set Crust (B11) Aquatic Invertebrates (B13) Hydrogen Suffice Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tillest Soils (C Stunied or Stressed Plants (D1) (LRR / Other (Explain in Remarks) Depth (inches): Depth (inches):	Protectory Indicators (2 or more result Secondary Indicators (2 or more result RA Water-Stained Leaves (89) (MLR Drainage Patterns (810) Dry-Seeson Water Table (C2) Seturation Visible on Aerial Image Ots Setalow Aquitart (03) FAC-Neutral Test (D5) No Froat-Heave Hummocka (D7) Iand Hydrology Present? Yes No if available:

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Project/Sile: Satur North	S City/County M	which le conding Ports 2-21-17	Profile Description: (Describe to the depth needed to document the ind	dicator or confirm the absence of indicators.)
An-10	bajroodinj.	ING TAX	Depth Metrix Redox Features	Tankin Dama
	1	State: Sempling Point:		TYDE LOC TEXTILE REPORT
Investigator(s): 29 Style	Section, Township, F	ANDA SZATJIN KSE	10 104.42	- 2mg in
Landform (tillslope, terrace, etc.):	Local relief (concave	convex, none). Sicce (%):	18 10 m 3/4	lowing son
Eubrasian & DDL				
		Long Cerun:		
Soil Map Unit Name: CVS FCA		NWI classification:		
Are climatic / hydrologic conditions on the site typical for	x this time of year? Yes No	(If no, explain in Remarks.)		
Are Vegetation 🛩 . Soit . or Hydrology	significantly disk shed?	"Normal Circumstances" present? Yes Vo		
Are Manafeline Oak W as Mudalant	anti-unit - anti-tantation diff	and at an take an annual in Barraha t		
Alle vegetalent ack bi Hydrology	mecurany problematic ? (ii)	teronici, explain any answers in idemarks.)		
SUMMARY OF FINDINGS - Attach site m	ap showing sampling point	locations, transects, important features, etc.		
T			Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered c	or Coated Sand Grains. ² Location: PL=Pore Lining
Hydrophylic Vegetation Present? Yes	NO manageres la the Commit	rd Arma	ityaria dell'indianare: (Applicable le al Livia, unique obtervivo neur	indicator for Trainmair II
Hydric Sol Present? Yes	No 7		Histosol (A1) Sandy Redox (S5)	2 cm Muck (A10)
Wetland Hydrology Present? Yes	No No		Histic Epipedon (A2) Stripped Matrix (S6)	Red Parent Material (TF2)
Remarks: AL		***************************************	Black Histic (A3) Loamy Mucky Mineral (F1)	(except MLRA 1)Other (Explain in Remarks
TONE NOTAL	Faiwrell .		Hydrogen Sulfde (A4) Loamy Gleyed Matrix (F2)	
plower + cull	into traid		Depieted Below Derk Surface (A11) Depieted Matrix (F3)	34
VEGETATION - Has aslanding some of	lante		Invok Litera Surface (A12) Hedox Litera Surface (P6)	HIGGENOIS OF NY GROUNTLE VEGE
TARLAND - USE SCHOLUNC REMES OF	181 ILP.		Sandhi Glavari Matrix (S4) Defer Canadanina (S8)	y weaking mychology main be
Tree Stratum (Dist size:	Absolute Dominant Indicator	Dominance Test worksheet:	Bastrictive Laure II manuti	nuers distanted of proven
LINE MELININ (FROM SHED.	ALMONT DORDER STOLE	Number of Dominant Species	Lines of the buddents	
		Inat Are Ubl., FACW, or FAC: (A)	1 years	
2.		Total Number of Dominant	Depth (inches):	Hydric Soll Present? Yes
3		Species Across All Strata: (B)	Remarks:	
4.				the suite
	- Total Cover	That are OBL EACW or EAC: (A/R)	Jang Co	
Sapling/Strub Stratum (Plot size:)		The ALE ODD, FACH, DI FAC.		
1		Prevalence Index worksheet:	L	
2		Total % Cover of: Multiply by:	HYDROLOGY	
3.		OBL species x1=	Wesend Hydrology Indicators:	
4		EACH energies v3 =	Primary (policators (minimum of one required: check all that apply)	Secondary Indicators (2 or n
-			Curdent Matter (61) Material Lange	(PO) (august 10) PA Mater Steined (august)
P		FAC Species X 3 *		(DB) (avcaht werder and average output cotrate (
Hards Streeture (Bint aires)	* Totel Cover	FACU species x4 =		44, 200 40) Deciment 240
THEIL CHICALATI (FRA W28	3/3 1	UPL species x5 =	Saturation (A3) Sat Grust (817)	Dranage Patterns (B10
1		Column Totals: (A) (B)	Water Marks (B1) Aquatic invertebrates ((B13) Dry-Season Water Table
12 - 15 cpm 2 2pp	<u></u>		Sediment Deposits (B2) Hydrogen Sulfide Odor	r (C1) Saturation Visible on Ae
3		Prevalence Index * B/A *	Drift Deposits (B3) Oxidized Rhizospherer	a along Living Roots (C3) Geomorphic Position (D
4		Hydrophytic Vegetation Indicators:	Aigel Met or Crust (B4) Presence of Reduced 1	iron (C4) Shallow Aquitard (D3)
5		Dominance Test is >30%	Iron Deposits (85) Recent Iron Reduction	in Tilled Solls (C6) FAC-Neutral Test (D5)
6.		Prevalence Index is \$3.01	Surface Soli Cracks (B6) Stunted or Stressed Pl	lants (D1) (LRR A) Raised Ant Mounds (D5
7		Morphological Adaptations' (Provide supportion	Inundation Visible on Aeriel Imagery (87) Other (Explain in Rem	arks) Frost-Heave Hummocki
l		data in Remarks or on a separate sheet)	Sparsely Vegetaled Concave Surface (BS)	
		Wetland Non-Vescular Plants	Field Observations:	
и. <u></u>		Problematic Hydrophylic Venetation' (Evolution)	Surface Water Present? Yes No. Depth (inches):	
10		Indirotore of hurden and and unable of hurden and	Winter Table Dresent? Vor Bis Danth (unhos):	
11		incomente un inverse aux anno more inversione inversione in inversione in inverse disturbant or problematic.		Matian at Mashada are Banagaria Ma-
	Total Cover		j Saturason Present/ TesNoDepth (incres);	westand Hydrology Present? Yes
Woody Vine Stratum (Plot size:)			Describe Recorded Data (stream pauce, monitoring well, serial photos, prev	ious inspections), if gvailable:
1		Hydrophytic		
		Vegetation	Burne day	
2		Present? Yes No	Kemarks:	
2	W Total Course		1	, ,
2 % Bare Ground in Harb Stratum			A/3	, and a l
2 % Bare Ground in Herb Stratum	* Tofai Cover		10	, may s

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S. The	North 5	-	M	angentle 2-21-17	
oject/Site:		C#	ly/County:	Sampling Date: C-CI	
oplicant/Owner:				State: WM Sempling Point: UPF 4	
vestigetor(s): 22	Sewall	Se	ection, Township,	Range SZATJIN RSE	
Indiam (hillslope, terrace, etc.);		LC.	ocal relief (concav	e, convex, none). Slope (%):	
ibrenion d PD)		Lat:	•	Long: Detug:	
bi Map Unit Name: <u> </u>	IN			NWI classification:	
e climatic / hydrologic conditions	on the site typical for th	tis time of year?	? Yes N	o (if no, explain in Remerks.)	
e Vegetation Soil	_ or Hydralogy	significantly dis	sturbed? A	re "Normal Circumstances" present? Yes No	
e Vegetalion Soil	, or Hydrology	naturally proble	ematic? (I	f needed, explain any answers in Remarks.)	
INNARY OF ENDINGE	Attack site may			A laundlaum Annaniante Innaniante Cantorna ata	
UNIMART OF FINDINGS	- Attach and map	anowing a	ampang pom	a locauons, transecis, important leatures, etc.	
tydrophylic Vegetation Present?	Yes	No			***
fydric Sol Present?	Yes	No	is the samp		
Veiland Hydrology Present?	Yes	No	WITHIN & VIC	tisad? Yes No	
Remarks AL		5	: 11		
- /TOAVL	worme	TAIWT	~		
plomes	T CUTH	NTO I	mal c		
GETATION - Line enter	tific names of als	nts.		er an anna an anna an anna ann an ann ann	
		Abrolute	Openiment lock-	re Dominenza Tardumeletant	
ree Stratum (Plot size:		% Cover 5	Species? Status	A SAMIRANINA SUBLING AND SAME AND SAME	
and a second			LANDON CONTRACTOR OF CONTRACTO	That Are OBL, FACW, or FAC: (A)	
* *************************************	******				
***************************************				Total Number of Dominant	
*******	·····			Speciel Actors All Strate: (B)	
				Percent of Dominant Species	
anling/Shub Stratum (Piot size	•		Total Cover	That Are OBL, FACW, or FAC: (A/B)	
Contraction and a second second second	*			Prevalence index workshaet	
				Total & Cowar of Multiply far	
· ······					

				FAC species x 3 =	
lach Stratum (Distains)	,	²	Total Cover	FACU species X4 =	
HEID GUGERII (PAR SIZE				UPL species x 5 =	
	*****			Column Totals: (A) (B)	
*					
•					
*				Hydrophytic Vegetation Indicators:	
*				Dominance Test is >50%	
·				Prevalence Index is \$3.0'	
•	*****			Morphological Adaptations' (Provide supporting	
·					
				wenand Non-Vascular Plants	
0				Problematic Hydrophytic Vegetation' (Explain)	
1				Indicators of hydric soli and wetland hydrology must	
			Total Cover	wa presenti, unitata catuluat a provintiac.	
Voody Vine Stratum (Plot size:)				
				Hydrophytic	
				Vegetation	
******			Total Cover	Present? Yes No	
				1 1	
6 Bare Ground in Herb Stratum	-				

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Sampling Point: e Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Color (moist) % Type' Loc' Texts Matrix Color (moist) Remarks Texture 1m 102312 107h 2/2 om sm C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix in the state in all i filler t listosol (A1) Sandy Redox (S5) Red Parent Material (TF2) Hetic Epipedon (A2) Stripped Matrix (S8) Nack Histic (A3) Loamy Mucky Minerel (F1) (except MLRA 1) -Other (Explain in Remarks) tydrogen Sullide (A4) Loamy Gleved Matrix (F2) apleted Below Dark Surface (A11) Depleted Matrix (F3) hick Denk Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and _ Depleted Dark Surface (F7) wetland hydrology must be present, landy Mucky Mineral (S1) andy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. ictive Layer (If present): ype: Hydric Soll Present? Yes _ pth (inches): No wire-Santy custor souls ROLOGY and Hydrology Indicators: ary indicators (minimum of one required; chack all that apply) Secondary Indicators (2 or more required) ____ Water-Steined Leaves (89) (except MLRA Surface Water (A1) Water-Stained Leaves (B9) (MLRA 1, 2, ligh Water Table (A2) 1, 2, 4A, and 4B) 4A, and 48) ____ Selt Crust (811) Saturation (A3) ____ Drainage Patierns (810) Dry-Season Water Table (C2) Aquatic Invertebrates (B13) Vater Marks (B1) Hydrogen Sullide Odor (C1) Jediment Deposits (82) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) ____ Presence of Reduced Iron (C4) ___ Shallow Aquitard (D3) Ngel Mat or Crust (B4) ____ Recent Iron Reduction in Tilled Solls (C6) ron Deposits (85) ____ FAC-Neutral Test (D5) ____ Stunted or Stressed Plants (D1) (LRR A) ___ Raised Ant Mounds (D6) (LRR A) Surface Solt Cracks (B6) Other (Explain in Remarks) ____ Frost-Heave Hummocka (D7) nundation Visible on Aerial Imagery (87) Sparsely Vegetaled Concave Surface (B8) Observations: Depth (inches) ce Water Present? Yes No ____ r Table Present? Depth (inches); Yes No ation Present? No ____ Depth (inches); Wetland Hydrology Present? Yes Yes des capitary fringe) ribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: uks: No votates

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Project/Siles Sather North	City/County:	Marysville	Sempling Date: 2-21-17
Applicant/Owner:	1) Section Top	State: W	A sampling Point <u>DP</u> #5
Landform (hillslope, terrace, etc.):	Local relief	(concave, convex, none).	Stope (%):
Subregion (LRR) Soli Mep Usit Name: Custon	Lat:	Long: NW? clas	Datum:
Are climatic / hydrologic conditions on the site typic Ans Vegetation Soit, or Hydrology Are Vegetation Soit, or Hydrology _	il for this time of year? Yes significantly disturbed? naturally problematic?	No (If no, explain Are "Normal Circumstanc (If needed, explain any ar	in Remarks.) es" present? Yes No sswers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

	and the second se		
Hydrophylic Vegetation Present?	Yes No	ts the Sempled Area	/
Hydric Sol Present?	Yes No	within a Median d'	Y
Wetland Hydrology Present?	Yes No		T83
Remarks - Above No plowed +	cultured F	n in I d	

VEGETATION -- Use scientific names of plants.

US Army Corps of Engineers

	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Strater (Plot size:) 1))	% Cover	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2			Total the set of Overlage
3			Soecies Across All Strats; (B)
4			
Secting/Strub Stratum (Piot size:)		= Total Cover	That Are OBL, FACW, or FAC: (A/B)
1,			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3.			OBL species x1 =
4	** ****		FACW species x2 =
5			FAC species x 3 =
	************	* Totel Cover	FACU species x 4 =
Herb Stretum (Plot size:)			UPL species x 5 #
1. Taraxim officially	15	<u>~_</u>	Column Totals: (A) (B)
2. Loling preuse	<u>_ /0</u>	MU	
3.			Prevalence Index = B/A =
4.			Hydrophytia Vegetation Indicators:
5			Dominance Test is >50%
6			Prevalence Index is \$3.01
7			Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
0		·····	Wetland Non-Vascular Plants'
¥		-	Problematic Hydrophytic Vegetation' (Explain)
1µ.			Indicators of involvic soil and wetland hydrology must
11.			be present, unless disturbed or problematic.
Woody Vite Stratum (Pint size:		Total Cover	
t and the second s			thurles abutto
2			Vegetation
		* Total Caude	Present? Yes No
% Bare Ground in Harb Stratum			
Remarks:			

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•				Statest such (supplying)	or country a				
Depth _	Matrix		Red	ox Feetures	1	**		Barrades	
unches -	COLOR UNIONI		Conor (magai)			- Li	7	THEFTERKS	****
	royng	<u> </u>				2-1			
12	10 pr 3	/ I				10 -	<u> </u>		
18 1	orn3	16				10 m	4 50	\mathcal{M}	
		-			·				
		-							
					· ······ ·· ··				
Type: C=Con	centration, D=De	plation, RM=R	educed Matrix, C	S=Covered or Cost	ed Sand Grai	na ² Lo	cation: PL=	Pore Lining, M=	Matrix.
Hydric Soil in	dicatore: (Appli	cable to all LF	rte, unitete offi	erwise noted.)		mateate	THE TOP PROD	emaile Hydric	NON!
Histosol (A	1)		_ Sandy Redox	(\$5)		2 a	n Muck (Ast)	
Histic Epip	edon (A2)		Stripped Matrix	x (S6)		<u>Re</u>	i Parent Mat	erial (TF2)	
Stack Histi	ic (A3)		Loamy Mucky	Mineral (F1) (excep	t MLRA 1)	Oth	er (Explain k) Remarks)	
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F2)					
Depleted E	Selow Dark Surfa	08 (A11)	Depleted Matri	1X (F3)		Sec. Harris			فرسم م
Thick Dark	Surface (A12)		_ Hectox Denk Si	unace (F0)		Theseate	HE OF NYCIOD	nyuc vegetatio	n ang Sunt
Sandy Mu	CKY MINIBELI (57)		_ Depleted Dank			veena	ng nyarorog a disturbad	y musi de presi	झ स,
Bantrictive I -	you ment (04)		_ mour nebiae			1980 au	19 UKUMUKU	or provincially.	
THE OWNER AND	Ant fu bearingert.								
туре:									
Depth (inchi	es):					Hydric Soli	Present?	Tes	NO
fygingrege.			5~	y ers.	لمر :	5 -1	5		
IYDROLOG	Ŷ		5~	y ers.	hr :	5 -11	2		
IVDROLOG Welland Hydr	Y plogy indicators		5~~	y ers.	<u>لمر</u> :	5 ~11		ors (2 or more	required
IVDROLOG Weband Hydr Primery Indiced	Y biogy indicators (cts (minimum of	: one required: (5~~	y erse	<u>لمر</u> :	5 *11	nctery Indice	lors (2 or more	(equied)
IVDROLOG Webend Hydri Primery Indicat Surface W	Y ology indicators (cita (minimum of sater (A1)	: one required: c	5~~ theck all that app	ky Cuss ky) almod Leaves (B9) (d	EXCEPT MELICA	5 A 11	nderv Indicer	ors (2 or more 1 Leaves (89) ((POLITED) MLRA 1,
IYDROLOG Welland Hydr Primary Indicat Surface Wate	Y biogy indicators on (minimum of wher (A1) r Table (A2) (A2)	: one required, c	5~~	ky) eined Leaves (89) (4 A, end 48) 4(9 (1)	And :	5 A 11	ndary Indice Vater-Staine 4A, and 4	ors (2 or more 1 Leaves (B9) (8)	(Polited) MLRA 1,
IVDROLOG Weiland Hydro Primery Indicat Surface W High Wate Saturation	Y ology indicators one (minimum of ster (A1) r Table (A2) (A3) u (A1)	: one required, c	5 ~~ theck all that acc Water-Stu Staff Crus Acquaints to	ky) almod Leaves (B9) (d IA, and 48) a (B11) mander (B12)	Kan :	5 A)	Vater-Staine 4A, and 4 Irainage Pat	ors (2 or more d Leaves (B9) (B) ems (B10) Veter Table (Ci	(equited) MLRA 1,
IYDROLOG Welland Hydr Primery Indigat Surface W High Wate Saturation Water Mar	Y biogy indicators ster (Minimum of ster (A1) r Table (A2) (A3) ks (B1) Denotin (22)	: one required, c	5~~ theck all that acc Water-St 1, 2, 4 Sett Crus Aquatic Ir Interference of the setting o	A C S S almod Leatwes (B9) (s 4, and 48); 4 (B11) mertebrates (B13) 5 (B16)	bxcept MLRA	5 ~, / 	Vater-Staine 4A, and 4 Irainage Pert hy-Seeson V	lors (2 or more d Leaves (89) (8) erns (810) Vater Table (C3	(equired) MLRA 1,
PyDROLOG WeBand Hydri Surface W High Wate Saturation Water Mar Sedment I	Y biogy indicators orts (minimum of uter (A1) r Table (A2) (A3) ks (B1) Deposits (B2) ms (B2)	: one required, c	5 ~~ theck all that acc — Water-St 1, 2, 4 — Selt Crus — Aquatic Ir — Hydroger	ky) ehod Leaves (B9) (d A, and 48) a (B11) nvertebrates (B13) n Suffee Odor (C1)	Except MLRA	S A 1	ndarv Indica Vater-Sisten 4A, and 4 Indinage Pati hy-Season V leturation Vite	ors (2 or mors d Leaves (B9) (B) ems (B10) Veter Teble (Ci sible on Aerist i Jonition (D)	(<u>equited)</u> MLRA 1, () (negery (
IVDROLOG Weßend Hydr Surfece W Seturation Seturation Seturation Sediment I Drift Depo	Y biogy indicators biter (A1) r Table (A2) (A3) tw (B1) Deposits (B2) bits (B3) c Count (B4)	: one required, c	S ~~ theck all that acc — Water-Stu 1, 2, 4 — Sett Crus — Aquetic Ir — Hydroger — Oxidized Preserver	b) ehod Leaves (B9) (d A, and 48) a (B1) nsufide Cdor (C1) Rhizospheres along of Borb notion (C7)	Except MLRA		Nature States St	ors (2 or more d Leaves (B9) (B) erms (B10) Veter Teble (C3 ible on Aerial I Position (D2) erd (D3)	(pouried) MLRA 1, MLRA 1, ()
YDROLOG Welland Hydr Surface W High Wate Seturation Weter Mar Sediment I Drift Depo Agei Mat C Ingo Mat	Y biogy indicators ors.(Inthinrums of bater (A1) (A3) ta (B1) Deposits (B2) eits (B3) or Crust (B4) the (B4)	: one required. c	Auguster St 	A C S S Riv) almod Leaves (B9) (d A, and 48) a (B11) mertebrates (B13) t Suffée Odor (C1) Rhizospheres along of Reduced Iron (C an Beducing in Time	Except MLRA	S A 1 /	Vater-Staine Kater-Staine AA, and 4 Irrainage Path hy-Season V isturation Vili Beomorphic I haltow Aquit Achivare1	lors (2 or more 1 Leaves (BB) (B) iems (B10) Veter Teble (Ci sible on Aeriat Position (D2) and (D3) Teat (D5)	(Posified) MLRA 1, () (negery ()
IYDROLOG WeBand Hydr Primery Indicat Saturation High Wate Saturation Water Mar Saturation Drift Dapo Algel Mat o Lico Dapo Surfoce Sc	Y biogy indicators ors. (minimum of tater (A1) (A3) (A3) (A3) (A3) (A3) (A3) (B1) Deposits (B2) bits (B3) or Crust (B4) sits (B5) al Crust (B4)	: one required. C	5 ~~ theck all that acc 	A C S S almod Leaves (B9) (or A, and 48); at (B11) mentebrates (B13) or Reduced iron (C on Reduction in Tille or Streaged Chanter (C	Living Roots 4) bid Solie (C8)	S ~ 1 /	ndary Indica Vater-Staine 4A, and 4 krainsge Pett hy-Seeson V keomorphic I hallow Aquit AC-Neutral insad Ant 4	lors (2 or more. d) Leaves (BB) (a) lems (B10) Veter Table (C2 sible on Aerial I Jostion (D2) and (D3) Test (D5) cumts (D3) (75) (18)	(Posited) MLRA 1, () (negery ((
IVDROLOG Weitend Hydr Enimery (Indicati Surface W High Wate Sediment I Drift Depor Agel Met C I tron Depor Surface Sci Lauritor Sci	Y biogy indicators orse (minimum of ster (A1) r Table (A2) (A3) ks (B1) Deposits (B2) eits (B3) or Crust (B4) eits (B5) bit Cracks (B6) Viable or Accord	one required c	5 ~~ theck all that app 	by C - S - and Leaves (B9) (d A, and 48) 4 (B11) nvertebrates (B13) n Suffed Odor (C11) Rhizospheres along of Reduction in Tille or Stressed Piants (C	Eliving Roots 4) bit Solie (C8) 31) (LRR A)	S * 1 / 	hdarv Indice Vater-Staine 4A, and 4t rainsge Pat hy-Seeson V ieturation Vil ieturation Vil ieturation Vil ieturation Ant M AC-Neutrai Laised Ant M	lors (2 or more 1 Leaves (B9) (B) erns (B10) Vater Table (C1 ible on Aerial 1 Joaition (D2) arid (D3) Fest (D5) ounds (D6) (LF)	(<u>required</u>) MLRA 1, () (R A)
IYDROLOG WeBand Hydr Primary Indicat Saturation Unite Water Mar Saturation Unit Depot Aigsi Mato Iron Depot Satrace Sc Iron Depot Satrace Sc Iron Depot	Y ology Indicators one (minimum of ster (A1) r Table (A2) (A3) tes (B1) Deposites (B2) or Crust (B4) site (B5) of Crust (B4) site (B5) of Crust (B4) visitie on Aental /egensted Concen	: sne requirest c Imagery (B7) je Surface (66)	5 ~~ theck all that acc 	A C S S altrod Leaves (B9) (st A, and 48) a (B11) mertebrates (B13) n Suffice Odor (C13) n Stressed Plants (E plain in Remarks)	Living Roots (Living Roots A) od Saile (C8) D1) (LRR A)	S • ; /	Natary Indices Vater-Staine Vater-Staine Harmon Staine Vater-Staine Va	ors (2 or more. 1 Leaves (B9) (B) erns (B10) Veter Table (C2 ible on Aeriat I obation (D2) erd (D3) Test (D5) ounds (D6) (L6 lummocks (D7	(<u>required)</u> MLRA 1, () (negery ((IR A))
IVDROLOG Weitend Hydr Surface W High Wate Saturation Weter Mar Sediment I Drift Depo Agei Mat G I tron Depo Surface Sc Junndation Sparsely V Field Observa	Y ology Indicators for (minimum of ther (A1) r Table (A2) (A3) beposite (B2) olits (B3) or Crust (B4) site (B5) oli Cracks (B6) Visible on Aental Concan Sions:	: one required, c imagery (57) ie Surface (56)	S ~~ 	A C S S Bit) ehod Leaves (B9) (d A, and 48) a (B1) n Suffde Odor (C1) Rhizcapheres along or Reduced inon (C on Reduced inon (C) on (C	Eliving Roots 4) bit Solle (C8) 11) (LRR A)		ndary Indicat Vater-Staine 4A, and 4 hy-Seeson V eturation VI leomorphic I hattow Aquit AC-Neutral AC-Neutral Ac-Neutral rost-Heave I	ors (2 or more t Leaves (B9) (B) erns (B10) Vetor Table (Ci sible on Aerist I Toaltion (D2) and (O3) Test (D5) ounds (D6) (LP	(Pouried) MLRA 1, () (R A))
IYDROLOG Weiland Hydro Surface Water Mar Surface Water Mar Sediment Drift Depot Agel Mat a Drift Depot Agel Mat a Surface St Inundation Field Observa Surface Water	Y biogy indicators crs.(Inthirrum: of uter (A1) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	: : : : : : : : : : : : : : : : : : :	Anack all that app 		Living Roots (Living Roots 4) bid Solle (C8) 1) (LRR A)	S ~ ; /	Vater-Staine Vater-Staine 4A, and 4 Insinsge Pati Insite Staine Ac-Neutral AC-Neutral AC-Neutral Rost-Heave (Leaves (BB) (B) erns (B10) Vater Table (C B) Solition (D2) and (D3) Fest (D5) cunds (D6) (LF iummocks (D7	(Pouried) MLRA 1, () (negery (((R A))
IVDROLOG Welland Hydri Surface W High Wate Saturation Water Mar Sediment 1 Drift Depor Algel Mat o Inrin Depor Surface Surface Surface Swater Surface Water	Y biogy indicators ors.(minimum of witer (A1) r Table (A2) (A3) ks (B1) Deposits (B2) bits (B3) or Crust (B4) bits (B5) Visible on Aenal legetated Concas Sions: Present? resent?	: one required: ¢ Imageny (57) le Gurface (96) Yes No	5 ~~ theck all that acc 	A C S S almod Leatwes (B9) (s almod Leatwes (B9) (s almod Leatwes (B9)) (s almod 48) al (B11) mertebrates (B13) n Suffide Odor (C1) Rhizzapheres along or Reduced iron (C on Reduction in Title r Stressed Plents (C plain in Remarks) mohes): 	Living Roots (Living Roots 4) bit Saits (C8) D1) (LRR A)	S A 1 /	Adary Indica Vater-Staine 4A, and 4 Irainage Pat Irainage	iors (2 or more. d Leaves (BB) (8) iems (B10) Veter Table (CC sible on Aerial i Joséion (D2) arid (D3) l'est (D5) ounds (D8) (Lf iummocks (D7)	(POLITED) MLRA 1, () megery ((IR A))
IVDROLOG Weiland Hydr Sufface W Saturation Saturation Saturation Drift Depot Agei Mat d Drift Depot Agei Mat d Drift Depot Agei Mat d Iron Depot Sufface Saturation Field Observe Sufface Water Water Table Pr Saturation Pres Saturation Pres	Y ology indicators ors.(minimum di ter (A1) r Table (A2) (A3) iks (B1) Deposis (B2) elts (B3) or Cruek (B4) elts (B5) Visitie on Aenel Visitie on Aenel Visitie on Aenel Visitie on Aenel Sions: Present? resent? resent?	: : : : : : : : : : : : : : : : : : :	S ~~ thack all that app — Water-Stu 1, 2, 4 — Selt Crus — Aquatic II — Hydroger — Oxidized — Presence — Recent in — Stunted o — Other (E) — Depth (it — Depth (it	build leaves (B9) (deaves (B13) mortestes (B13) tourist (deaves (B13) of Reduced Iron (C on Reduced Iron (C on Reduced Iron (C on Reduced Iron (C plains in Remarks) mohes): nches):	Living Roots (Living Roots 4) vid Solle (C8) 1) (LRR A) 	S ~ ; / Second Second Second C Second Se	Vater-Staine Vater-Staine AA, and A Insinsge Pati hy-Season V iseomorphic I haltow Aquit Ac-Neutral Isseed Ant M rost-Heave (y Present?	Leaves (BB) (B) erns (BB) (B) erns (B10) Vater Table (C B) Saltion (D2) and (D3) Fest (D5) unnds (D6) (LF turnnocks (D7 Yes	(realited) (realited)
IVDROLOG Weitend Hydr Surface W High Wate Saturation Water Mar Sediment I Drift Depos Agel Mat G I ton Depos Unit Depos Juriace Sci I unundation Sparsely V Field Observa Surface Water Water Table PP Saturation Pres (includes capil) Describe Reco	Y ology Indicators for a (minimum of there (A1) r Table (A2) (A3) ks (B1) Deposits (B2) bits (B3) or Crust (B4) sits (B5) bit Cracks (B6) Visitie on Aental Gons: Present? creati? cre	imagery (87) limagery (87) le Surface (86) Yes No Yes No Yes No	S ~~ thack all that app Water-Sti 1, 2, 4 Set Crue Aquatic II Hydroger Oxidized Presence Recent In Stunted o Other (Er Dapth (it Dapth (it Dapth (it Dapth (it Dapth (it Dapth (it Dapth (it)	b - s - s b b b b b b b c	Living Roots (Living Roots 4) us Solie (C6) X1) (LRR A) 	S A 1 1	y Present?	iors (2 or more. d Leaves (B9) (B) erns (B10) Vater Table (C3 Vater Table (C2) vater (D3) Fest (D5) cunds (D6) (LF iurnmocks (D7) Ves	(rourinal) MLRA 1,)) IR A)) No
IVDROLOG Welland Hydri Surface W High Wate Saturation Water Mar Sediment 1 Drift Depor Algel Mat o Unit Depor Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface	Y biogy indicators ors. (minimum of witer (A1) r Table (A2) (A3) tes (B1) Deposits (B2) bits (B3) or Crust (B4) bits (B5) visible on Aenal repetited Concar sions: Present? resent? resent? resent? resent? resent? resent?	: imagery (97) le Surfsce (98) Yes No Yes No r gauge, monit	5 ~~ theck all that acc 	A C S S almod Leatwes (B9) (s almod Leatwes (B9) (s almod Leatwes (B9)) (s almod Leatwes (B13) almod Leatwes	Living Roots (Living Roots 4) bd Scills (C8) D1) (LRR A) Wetlan spections), if (S A j / Second V C C C C S C C S S C S S S S S S S S S S S S S	Adary Indice Vater-Staine 4A, and 4 Irainage Pat Irainage	iors (2 or more. d Leaves (BB) (B) iems (B10) Veter Table (C2 ible on Aerial i Josition (D2) and (D3) Fest (D5) ounds (D6) (LP iummocks (D7) Yes	(R A) No
IVDROLOG Weitend Hydr Surface W High Wate Saturation Water Mar Saturation General Dift Depoi Algel Mat I con Depoi Surface Sc I nondation Sparsely V Field Observa Surface Water Water Table Pr Saturation Pre- findludes capil Describe Reco Remarks:	Y ology Indicators for a (minimum of there (A1) r Table (A2) (A3) ks (B1) Deposits (B2) bits (B3) or Crust (B4) sits (B5) bit Cracks (B6) Visitie on Aenial expetitude Concar Sions: Present? exert? exert? exert? exert? exert? exert? exert? exert?	imagery (87) imagery (87) ie Surface (86) free No free No free No n gauge. monit	5 ~~ thack all that acc — Water-Sti — 1, 2, 4 — Self Cirus — Aquatic II — Hydroger — Oxidized — Presence — Recent II — Stunted o — Other (Er — Ogeth (it — Depth (it) — Depth		Living Roots (Living Roots 4) do Solie (C6) X1) (LRR A) spections), if i	S A 1 1	y Present?	ers (2 or more t Leaves (B9) (B) erns (B10) Vater Table (C3 Vater Table (C3) lible on Aeriar i Position (D2) and (D3) Fest (D5) cunds (D6) (LF iummocks (D7) Yes	<u>(rearised)</u> MLRA 1, 1) magery ((IR A)) No

US Army Corps of Engineers

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*
S. the North	5 M	- 11	Profile Description: (Describe to the depth needed to	o document the indicator or confirm the absence of indi
Project/Sile:	City/County: 1-14	MYSVIII Sampling Date: C-CI-I	Depth Matrix	Redax Features
Applicant/Owner:		State: WA Sempling Point: DFF 6	(inches) Color (moist) % Color (m	tet) % Type Loc Texture
Investigator(s): Ed Sewa	Section, Township, R	and SZY TJIN RSE	12 10VA312	Sully Iam
i storilootti (billeloon, tarraon, air)	Local setial (concerns	Comunications) Comunication	18 104R316	16 may sav
Calculation (Intercept, Calculation, Calculation)	CLOCK SOUD (WAICAVE,	Convex, INTRY.		
Subregion (LKK)	Lar	Long: Datum:		
Soli Map Unit Name: CVSTCA		NWI classification:		
Are climatic/ hydrologic conditions on the site typica	I for this time of year? Yes No .	(If no, explain in Remarks.)		
Are Vegetation, Soit, or Hydrology	significantly disturbed? Are	"Normal Circumstances" present? Yes No		
Are Vegetation Soil - or Hydrology	naturally problematic? //fin	resded, explain any answers in Remarks)		
		and another and an and an an an and an an		
SUMMARY OF FINDINGS - Attach site	map showing sampling point	locations, transects, important features, etc.		
			Type: C=Concentration, U=Depletion, RM=Reduced M	ank, CS=Covered of Coated Sand Grams. Cocacon: F
Huttin Sol Present?	No. 2 is the Sample	d Area	Historoi (A1) Sandy F	Redax (SS) 2 cm Mark (
Wettend Hutminey Present? Ver	No within a Wetla	ind? Yes No	Histic Epipedon (A2) Stripped	i Matrix (58) Red Parant I
Remarks A .			Black Histic (A3) Loanny I	Mucky Minerel (F1) (except MLRA 1)Other (Expla
- Above Norma	1 rainfell		Hydrogen Sutlide (A4)	Jieyed Matrix (F2)
plowed + cu	Hunte Fraid		Depleted Below Derk Surface (A11) Deplete	d Maetx (F3)
	6		Thick Dark Surface (A12) Redox E	Jank Surface (F6) Indicators of hyd
VEGETATION - Ose scientine names o	r plants.	······································	Sandy Mucky Minister (57) Departure Sandy Claused Matrix (54) Partor (3 Laure destante (* /) weater a weater a statut
Tree Stratury (Rint size:	Absolute Dominant Indicator	Dominance Test worksheet:	Restrictive Laver III present:	
1 International (Processor)	ALMAN DURNER DURNER	Number of Dominant Species	Tute	
		Inacole Obc. Frich, of Fric.	Death (inches)	India Gall Deserve
		Total Number of Dominant		Engline doil Friedolin
		B)	rearisansa.	• *
*		Percent of Dominant Species	Som Cust	54/5
Seolina/Strub Stratum (Pict size:	* Fotal Cover	That Are OBL, FACW, or FAC: (A/B)		-
1.		Prevalence index worksheet:		
2		Total % Cover of: Multisly by:	HYDROLOGY	
3		OBL spacies x1 #	Wetland Hydrology Indicators:	
4		FACW spacing x 2 =	Primary Indicators (minimum of one required; check all th	at apply) Secondary Ind
5		FAC species v 3 s	Surface Water (A1) Wa	Har-Stained Leaves (B9) (except MLRA Water-Ste
·			High Water Table (A2)	1. 2. 4A. ani 4B) 4A. an
Herb Stratum (Plot size:)	- I Diel Cover		Saturation (A3) Sat	t Crust (B11) Drainage i
1 Lacing 300	20 NI	Catama Totale (A)	Water Marks (B1) Ac	uatic Invertebrates (B13) Drv-Seear
2 11		(A)(D)	Sediment Deposits (B2)	drogen Sulfide Odor (C1) Saturation
3		Prevalence Index = B/A =	Drift Deposits (B3) Ox	idized Rhizospheres along Living Roots (C3) Geomorph
4		Hydrophytic Vegetation Indicators:	Algel Mat or Crust (B4) Pre	mence of Reduced Iron (C4) Shallow A
5		Dominance Test is >50%	iron Deposits (85) Re	cent Iron Reduction in Tilled Solis (C8) FAC-Neut
A		Prevalence index is \$3.0 ¹	Surface Soli Cracks (B6) Stu	inted or Stressed Plants (D1) (LRR A) Raised An
7		Mombological Adaptations' (Provide supportion	Inundation Visible on Aertal Imagery (87) Ott	ter (Explain in Remarks) Frost-Hea
/·		data in Remarks or on a separate sheet)	Sparsely Vegetaled Concave Surface (B6)	
0.		Wetland Non-Vascular Plants	Field Observations:	
¥.		Problematic Hydrophytic Vegetation' (Explain)	Surface Water Present? Yes No	pth (inches):
10.		Indicators of hydric soil and wettand hydrology must	Water Table Present? Yes No D	epih (inches);
11		be present, unless disturbed or problematic.	Saturation Present? Yes No D	apth (inches); Wetland Hydrology Preser
Moorty Vize Stratum (Diot sup)			(includes capitary fringe)	
TIMENT VIEW SUMPLIES (PIOT SIZE:)			Describe Recorded Data (stream gauge, monitoring well,	serial photos, previous inspections), if available:
3		Hydrophytic Vegetation		
×		Present? Yes Ho	Remarks:	
% Barn Grund in Link Stratum	* Total Cover		1	
Remarke				
Remarks:				

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Sampling Point: __

²Location: PL=Pore Lining, M=Matrix

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soll Present? Yes _____ No ___

Secondary Indicators (2 or more required)

___ FAC-Neutral Test (D5) ____ Raised Ant Mounds (D6) (LRR A)

___ Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C8)

Frost-Heave Hummocks (D7)

Water-Stained Leaves (B9) (MLRA 1, 2,

Project/Sile:	5. Thu	North	5	City/Count	»: М.	misulle	Sampling Date: 2	-21-17
Applicant/Owner:						State: WI	A Sempling Point	DMZ
Investigator(s):	82	Sewal	١	Section. T	ownship. Ra	1000 SZ4 7	TJIN RS	5 E
Landform (Hillslope	terrace, etc.):			Local ralia	d (concave	CORVEX OCOO)	Since (94.1:
Subretion (RR)		****	l atr			Long:	Dehum:	
Soil Man Hait Munn	. C	1-2.5						
Are climatic / hudmi	·	on the city balant for				//f a.c. musicini	(a Bacanta)	
Ann Manadafan	n na seanna an seanna	ors the alter typecal to	olusille ante	alir 1939	NO	(in co., explaining		
Are Vegeteron	- 808	, or mydrology	significantly		ANE	Worman Circumsterica	is present? Tas	_ NO
Are vegetation	308	, or Hydrology	naturally pro	IDIBITURDIC 7	(ii ni	seded, explain any an	swors in Keinsiks.)	
SUMMARY OF	FINDINGS -	 Attach site m 	sp showing	samplii	ng point i	ocations, transe	cts, important featu	Jres, etc.
Linteriologie Verse	aline Granes	V						
Hydric Sol Preser	4?	Yes	No	2 "	he Samples	i Area	/	
Wetland Hydrolog	y Present?	Yes	No Z	wit	hin a Wetla	nd? Yes_	No	
Remarks _	h	Normil	5					
	Alamad	+		È.	1 d			
L	<u>r</u>	,						l
VEGETATION	- Use scient	the names of p	lants.					
Tres Streture 104			Absolute	Dominan	t Indicator	Dominance Test w	orksheet:]
1.		J	ALMONT.	- SAMERAL		Number of Dominar	nt Species W. or FAC:	
2						THEFTE ODE, THE	····	_ ~ ~
3.						Total Number of Do Species Across All	minant Strata:	(8)
4				-				
				- Total C	over	That Are OBL, FAC	W, or FAC:	(A/B)
Secting/Strub Str	tum (Plot size:	·						
1.						Total & Course	NUTREATERT:	
3				-	-	ORI species	<u>ν1</u> ± 1 ±	•
4		*****				FACW species	x2=	
5						FAC species	x3=	
				- Total C	over	FACU species	x4=	
Herb Stratum (P)	of size:		15	÷.	NE	UPL species	x5=	
Tan	in sp	EF	1,12	***		Column Totals:	(A)	(6)
3 2220	chance	Fullent.	112		FR	Prevalence in	dex = B/A =	
4		A. T. K	man hallan			Hydrophytic Vegel	ation indicators:	
5						Dominance Tee	it is >30%	
6						Prevalence inde	ex is £3.0 ¹	
7						Morphological /	Adaptations' (Provide sup	porting
8					-	Walland Mon V	erna ur on a separate \$14 'aacidar Plants ¹	PO()
9						Problematic Hu	erophytic Vegetation ¹ (Fy	(niskon
10						Indicators of hydric	soil and wetland hydroio	gy must
11.						be present, unless o	Sisturbed or problematic.	
Woody Vine Strate	(Piol size: _			,≂ Tobal Co	IVB1			
1						Hydrophytic		
2						Vegetation	V N /	
				» Total Co	Yer	FINNINT	1 4 P	-
1 % Bare Ground in	Herb Stratum					L		
Bernerke								

IL. mile Description: (Describe to the d	anth manted to document the indicator or con	Sampling Point:
with Adation Adation	Deter Contrast	
epon <u>Marris</u>	Color (moist) % Type Loc	Texture Remarks
10 INVR212	ng multilitetilitetilitetilitetilitetiliteti	Tom
15- 1010 3/4		160 001
× 10410217		
	-	
vpe: C=Concentration, D=Depletion, F	M#Reduced Matrix, CS#Covered or Coased Sanc	Graine. Location: PL=Pore Lining, M=Matrix,
Historof (A1)	Sendy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S8)	Bed Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA	(1) Other (Explain in Remarks)
Hydrogen Sutlide (A4)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	"Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
strictive Layer (if present):		
Тура:		
Depth (inches):		Hydric Soll Present? Yes No
C v	sta soils	
DROLOGY	ista soils	
DROLOGY ritand Hydrology Indicatora:	sh soils	
DROLOGY Bland Hydrology Indicators: Imery Indicators (minimum of one roque	red; sheck all that apply)	Secondary indicators (2 or more resulting)
DROLOGY BROLOGY effand Hydrology Indicators: Imery Indicators (minimum of one rocus _ Surface Water (A1)	red; check all that apply) 	Secondary Indicators (2 or more resulted) MLRAWater-Stated Leaves (B9) (MLRA 1,
DROLOGY DROLOGY risand hydroiogy indicators: imary indicators (minimum of one reque Surface Water (A1) High Water Table (A2)	red; check # Bat apply) 	Secondary Indicators (2 or more resulted) MLRA Water-Stained Leaves (B9) (MLRA 1, 4A, and 48)
DROLOGY stand Hydrology Indicators: mary Indicators (midmum of one requ Surface Water (A1) , High Water Table (A2) , Saturation (A3)	red; check all that apply) Water-Steined Leaves (SB) (except 1 1, 2, 44, and 4B) Sett Crust (B11)	Secondary indicators (2 or more resulted) MLRA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patierne (B10)
DROLOGY elfand Hydrology Indicators: imery Indicators (minimum of one reque Surface Water (A1) – High Weter Table (A2) – Saturation (A3) – Water Marks (B1)	red; check ## that apply) 	Secondary Indicators (2 or more resulted) MLRA Water-Stained Leaves (B9) (MLRA 1, 4A, and 43) Drainage Patterns (B10) Dry-Season Water Table (C2)
DROLOGY sfland Hydrology Indicators: imary Indicators (minimum of one reque Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	red; check ## Biet apply) 	Secondary indicators (2 or more resulted) MLRAWater-Stained Leaves (B9) (MLRA 1, 4A, and 48) Drainage Petierns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Asrial Imagery (C
DROLOGY effand Hydrology Indicators: immer: Indicators (Indicators): Surface Water (A1) - High Water Table (A2) - Saturation (A3) - Water Marks (B1) - Sediment Deposits (B2) - Drift Deposits (B3)		Secondary indicators (2 or more resulted) MLRAWater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Potterns (B10) Dry-Season Water Table (C2) Saturation Visible on Actinis Imagery (C Roots (C3)Geomorphic Position (D2)
DROLOGY stand Hydrology Indicators: immer (indicators (intilinum of one reque Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Orit? Deposits (B3) Agel Met or Crust (B4)	red, check all that apply) 	Secondary Indicators (2 or more neutrical) MLRA
DROLOGY eBand Hydrology Indicators: Imery Indicators (Initirnum of one rodu- Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drift Deposits (B3) Agei Mat or Crust (B4) Iron Deposits (B5)	red; check #i that apply) 	Secondary indicators (2 or more opulated) MLRAWater-Stained Leaves (B9) (MLRA 1, 4A, and 43) Drainage Petterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerist Imagery (C Roots (C3) Geomorphic Position (D2) Shaflow Aquitatd (D3) (C6) FAC-Neutral Test (D5)
DROLOGY effand Hydroiogy Indicators: Impar. Indicators (Iminimum of one recu Surface Water Table (A2) Saturation (A3) Water Marka (B1) Sedmern Deposits (B2) Onit Deposits (B3) Age (Met or Cruz (B4) Iron Oeposits (B5) Surface Soil Cracks (B6)		Secondary Indicators (2 or more resulted) MLRA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
Productory Produ		Secondary Indicators (2 or more resulted) MLRAWater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patierns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C Roots (C3)Geomorphic Position (D2) Shilow Aquitard (O3) (C8)FAC-Neutral Test (D5) R A)Raised Art Mounds (D5) (LRR A) Frost-Heave Hummocks (D7)
DROLOGY effand Hydrology Indicators: Imeru Indicators (Ithilmum of one reque Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Orit? Deposits (B3) Agel Met or Crust (B4) fron Deposits (B5) Surface Soil Cracks (B6) Inurdation Visible on Aerial Imagery Spansely Vegetated Concave Surface	ssh ssill ber apply red; check all ber apply Water-Steined Leaves (89) (except 1 1, 2, 4A, and 4B) Sett Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odr (C1) Oddized Rizospheres along Living 1 Presence of Reduced Iron (C4) Recent fron Reduction in Tilled Bolis Stunied or Stressed Plents (D1) (LRI (B7) Other (Explain in Remarks) a (B6)	Secondary Indicators (2 or more resultred) MLRA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
DROLOGY effand Hydroiogy Indicators: Imar/ Indicators (Intinimum of one reque Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposts (B2) Orit Deposts (B3) Agel Met or Crust (B4) Iron Deposts (B5) Surface Soit Cracks (B6) Inunctation Visible on Aeriel Imagery Sparsely Vegetaded Concave Surface ald Observations:		Secondary Indicators (2 or more orguined) MLRAWater-Stained Leaves (B9) (MLRA 1, 4A, and 48) Drainage Petterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C Roots (C3)Geomorphic Position (D2) Shaflow Aquitant (D3) (C6)FAC-Neutral Test (D5) R A)Reised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
DROLOGY eBand Hydrology Indicators: man: Indicators (Indicators	Sha soils (ceci, check all Bat apply) Water-Stained Leaves (S9) (except 1 1, 2, 4A, and 4B) Set Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oudized Rhizospheres along Living 1 Presence of Reduction in Tilled Soils Stunied or Stressed Plants (D1) (LRI (B7) Other (Explein in Remarks) e (B6) No	Secondary Indicators (2 or more resulted) MLRAWater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Petterns (B10) DrySeason Water Table (C2) Saturation Visible on Areisial Imagery (C Roots (C3)Geomorphic Position (D2) Statistion (D3) (C6)FAC-Neutral Test (D5) R A)Raised Ant Mounds (D5) (LRR A) Frost-Heave Hummocks (D7)
Brokens: Br	sshu ssills red; check all that apply) 	Secondary Indicators (2 or more neoutred) MLRA
DROLOGY effand Hydroiogy Indicators: Impr/ Indicators (Ininimum of one reque Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Agai Mat or Crust (B4) Inin Deposits (B5) Surface Soft Cracks (B6) Inindation Visible on Aerial Imagery Sparsety Vegetated Concave Surface sid Observations: reface Water Present? Yes	s.	Secondary Indicators (2 or more credited) MLRA
DROLOGY effand Hydroiogy Indicators: tmar/ Indicators (Intigrimum of one reque Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposts (B2) Orit Deposts (B3) Age (Met or Crust (B4) Inurdation Visible on Aerial Imagery spansely Vegetated Concave Surface aid Observations: ritace Water Present? Yes eter Table Present? Yes chudes capiliary finge)	Shares and solution in the series of the se	Secondary indicators (2 or more orsultred) MLRA Water-Stained Leaves (B9) (MLRA 1, 4A, and 43) Drainage Petterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerist Imagery (C Roots (C3) Geomorphic Position (D2) Shaflow Aquitant (D3) (C6) FAC-Neutral Test (D5) RA) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
DROLOGY effand Hydroiogy Indicators: Tranz Indicators (Itrialianum of one reque Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sedment Deposits (B3) Age (Met or Crust (B4) Inon Deposits (B5) Surface Soil Cracks (B6) Inurdation Visible on Aerial Imagery Spansely Vegetated Concave Surface star Table Present? Yes intractor Present? Yes chudes capillary fringe) Secribe Recorded Data (stream gauge.	S.M. S.D. IS Wate-Steined Leaves (89) (except 1 1, 2, 4A, and 48) Set Crust (811) Aquitic Invertentates (813) Hydrogen Sulfde Odor (C1) Oxidized Rhizospheres along Living 1 Presence of Reduced Iron (C4) Recent Iron Reduction in Tiled Solie Stunied or Stressed Plents (D1) (LRI (87)	Secondary Indicators (2 or more neutred) MLRA
DROLOGY effand Hydroiogy Indicators: Imary Indicators (Iniomum of one reque Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposts (B3) Agel Met or Crust (B4) Inon Deposits (B5) Surface Soli Cracks (B6) Inunctation Visible on Aerial Imagery Sparsely Vegatade Concave Surface ater Table Present? Yes Intraction Present? Yes Inter Table Present? Yes Intraction Present? Yes Intraction Present? Yes Inter Table Present? Yes Int	Shart Souries	Secondary Indicators (2 or more created) MLRA Water-Stained Leaves (B9) (MLRA 1, 4A, and 48) Drainage Patterns (B10) Drainage Patterns (B10)
DROLOGY effand Hydrology Indicators: Improvement in the indicator of the rocus Surface Water Table (A2) Saturation (A3) Water Marka (B1) Sedment Deposits (B2) Onit Deposits (B3) Agel Met or Crust (B4) Introduction Visible on Aerial Imagery Sparsery Vegetated Concave Surface and Observations: Introduction Present? Yes intraction Present?	Sha soils	Secondary Indicators (2 or more neutrice) MLRA
DROLOGY eBand Hydrology Indicators: Immer Indicators (Itinium of one reduct Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sedment Deposits (B3) Agei Met or Crust (B4) Iron Daposits (B5) Unit Deposits (B5) Unit Classes (B5) Hundation Visible on Aerial Imagery Sparsely Vegetated Concere Surface aid Observations: Intraction Present? Yes aiter Table Present? Yes aiter T	S.M. S.C. IS and S.	Secondary Indicators (2 or more resulted) MLRAWater-Stained Leaves (B9) (MLRA 1, 4A, and 48) Drainage Patierns (B10) DrySeeson Water Table (C2) Saturation Visible on Aerial Imagery (C Roots (C3)Geomorphic Position (D2) Shallow Aquitard (O3) (C8)Shallow Aquitard (O3) (C8)Shallow Aquitard (D5) R A)Raised Ant Mounds (D5) (LRR A) Raised Ant Mounds (D5) (LRR A) Raised Ant Mounds (D7) fetland Hydrology Present? Yes No fetland Hydrology Present? Yes No

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WETLAND DETERMINATIO	N DATA FORM Western Mo	untains, Valleys, and Coast Region	SOIL	
S. the North	5		Profile Description: (Describe to the	lepth needed to document the indicator or confirm the abee
Project/Sile; CEITEC/	City/County:	Sampling Data C-CI	Depth Matrix	Redax Fastures
Applicant/Owner:		State: WM Sempling Point: DP	Color (moist)	<u>Color (molet) % Type' Loc</u> Textun
rvestigstor(s): <u>22 36 wg</u>	Section, Township, F	tange S29 T31N R5E	6 1041272	
ndform (hillslope, terrace, etc.):	Local relief (concave	s, convex, none) Stope (%):	18 104 31G	/on
pregion (LRR)	Lat	Long: Detury:		
Man Unit Name: Custer		NWI destification		
climatic / hustralization anothing an the site halosi	And their binnes of unnues Man	/Man muchula (a Bannaka)		
e consider right toge contaitorie of the aster (pice)		(ii no, explain) in reemands.)		
s vegetation Soli, or Hydrology	significantly disturbed? An	s "Normal Circumstances" present? Yes No		
e Vegetation Soit, or Hydrology	naturally problematic? (If	needed, explain any answers in Remarks.)		
UMMARY OF FINDINGS - Attach site	map showing sampling point	locations, transects, important features, etc.		
	<u> </u>		Type: C=Concentration, D=Depletion, F	M=Reduced Matrix, CS=Covered or Coated Sand Grains.
Aydrophyte Vegenation Present? Yes	No la the Sample	nd Area		
tydtic Soi Present? Yes	- No Z within a Wet	and? Yes No	Histosof (A1)	Stringer Matrix (SS)
recent ryorology Present? Yes	NO		Stack Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)
- Above Normal	I rainfell		Hydrogen Sullide (A4)	Loamy Gleyed Matrix (F2)
plowed + cul	tunted Field		Depleted Below Derk Surface (A11)	Depleted Matrix (F3)
			Thick Dark Surface (A12)	Redox Dark Surface (F6) *indi
EGETATION - Use scientific names of	plants.		Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) w
Total Clearland /Dial sizes	Absolute Dominant Indicato	Dominance Test worksheet:	Sandy Greyed Maerix (S4)	reaux Lepressions (FD)
(PO SETURE (POC SIZE:)	A COVER Species? Statue	Number of Dominant Species	Turseincuve Layer (n present).	
		That Are OBL. FACW, or FAC: (A)	Type:	
		Total Number of Dominant	Depri (nones):	
		_ Species Across All Strata: (B)	romance.	
		Percent of Dominant Species		Puch soils
ling/Strub Stratum (Piot size:	a Total Cover	That Are OBL, FACW, or FAC: (A/B)		
		Pravalence Index worksheet:	L	
		Total % Cover of: Multiply by:	HYDROLOGY	
		OBL species x1 =	Welland Hydrology Indicators:	
		FACW species x2 =	Primary Indicators (minimum of one requ	red; check all that apply)
		FAC spacies x3 =	Surface Water (A1)	Water-Steined Leaves (89) (except MLRA
	= Total Cover	FACU species x 4 =	High Water Table (A2)	1, 2, 4A, and 4B)
no Stratum (Plot size:)		UPL spacies x 5 =	Saturation (A3)	Selt Crust (B11)
		- Column Totals: (A) (B)	Water Marks (B1)	Aquatic invertebrates (B13)
		-	Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)
		Prevalence index = B/A =	Drift Deposits (B3)	Oxidized Rhizospheres along Living Roots (C3)
		Hydrophytis Vegetation Indicators:	Agel Mat or Crust (B4)	Presence of Reduced iron (C4)
		Dominance Test is >50%	mon Deposits (Bb)	Kecent Iron Kecuction in Tilleto Solits (C6)
		Prevelence Index is \$3.0°	Journal Contracts (20)	(97) Other /Evolution in Remarks)
		Morphological Adaptations' (Provide supporting	Snamely Venetabed Commun Surface	(ar) (Conten (Colorente in Propriete Se)
		" Water No. Voerder Dents	Field Observations:	
		Deshiematic Shutzonhutin Venetation ' (Sunjain)	Surface Water Present? Ves	No - Deoth (inches):
		" Indicators of huddle soil and wattand huddlony must	Water Table Present? You	No Depth (inches):
l.		be present, unless disturbed or problematic.	Saturation Present? Yos	No Death (inches):
lands Vine Prestore (Olat sum)	* Total Cover		(includes capillary fringe)	
A CONTRACT (NOT SIZE :		du to at a	Describe Recorded Data (stream gauge.	monitoring well, serial photos, previous inspections), if available
		Vegetation		
		Present? YesNo	Remarks:	
Bare Ground in Herb Stratum	* Total Cover			
marks		. L		
NOVIN				
			······································	

escription: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Color (moist) Redox Fastures Color (moist) % Type* Loc* Texture Remarks 10YAZ/2 10mg 104/2314 long and ²Location: PL=Pore Lining, M=Matrix, Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Costed Sand Grains. e to al Lfille, unique outurvier na 10.0 eol (At) ____ Sandy Redox (S5) ____ 2 cm Muck (A10) ____ Stripped Matrix (S6) ___ Red Parent Material (TF2) Epipedon (A2) Other (Explain in Remarks) Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) ----ogen Sullide (A4) Loamy Gleyed Matrix (F2) ted Below Derk Surface (A11) Depleted Matrix (F3) Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and ----ly Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present. y Gleyed Matrix (S4) Redox Depressions (FB) unless disturbed or problematic. ve Layer (if present): Hydric Soll Present? Yes (inches): ___ No Cush soils OGY Hydrology Indicators: Secondary Indicators (2 or more required) relicators (minimum of one required; check all that apply) Water-Steined Leaves (89) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2, ice Water (A1) Nater Table (A2) 1, 2, 4A, and 4B) 4A, and 48) ation (A3) ___ Selt Crust (B11) ___ Drainage Patierns (B10) Marks (B1) Aquatic invertebrates (B13) Dry-Seeson Weter Table (C2) Saturation Visible on Aerial Imagery (C9) nent Deposits (B2) Hydrogen Sullide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Deposits (B3) Mat or Crust (B4) ____ Presence of Reduced Iron (C4) ____ Shallow Aquitanti (D3) ___ FAC-Neutral Test (05) moonite (BS) Raised Ant Mounds (D6) (LRR A) ce Soll Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) ation Visible on Aerial Imagery (87) ____ Other (Explain in Remarks) ___ Frost-Heave Hummocks (D7) ety Vegetated Concave Surface (B8) ervations: ater Present? Depth (inches): Yes Yes _____ No ____ Depth (inches); Yes _____ No ____ Depth (inches); e Present? Present? Wetland Hydrology Present? Yes No

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Sampling Point:

A at the		4.	Durfile Deep	destines: (Describe to the deal	anded to drawment the indicator or confirm	the shearce of indicators)
Project/Site: Salun North	City/County: M.	musurile Sempling Date: 2-21-17	Prome Desc	provid generative to the depe	E Minuted to document the marcellor of commit	
Anticant/Amer		Same INA Sameting DIA	(inches)	Color (moist) 34	Color (moist) % Type: Loc'	Texture Remark
SJ Same	1		/ 7	1010717	and a second	146 0
investigator(a): EA SEWGI	Section, Township, Ra	ngo SZY FJIN KSE				
Landform (Nillalope, terrace, etc.):	Local relief (concave.	convex, none) Slope (%);	18	2.59 919		sandy com
Subrenion 6 RR1	i at-	Long: Detugo				7
C						
Sou wap one mame: CV31V1		NWI CIRSERCEDON:				
Are climatic/ hydrologic conditions on the site typical to	this time of year? Yes No _	(If no, explain in Remarks.)				
Are Vegetation Soit, or Hydrology	_ significantly disturbed? Are	Normal Circumstances" present? Yes No	ļ			
Are Vegetation Soli - or Hydrology	naturally number nation /if n	andert availain any ampare in Damarke)				
the endering and the second of the second se	we we want the process of the second					
SUMMARY OF FINDINGS - Attach site m	p showing sampling point	ocations, transects, important features, etc.				
	<u> </u>		Type: C=Cc	ncentration, D=Depletion, RM=	Reduced Matrix, CS=Covered or Coated Sand G	naine. ² Location: PL=Pore Lining
Hydrophylic Yegelation Present? Two	No la the Sample	Araa	itydde Boll I	dicetore: (Applicable to all)	Rite, unises officialize noted.)	indictions for Problematic Hy
Hydric Sol Present? Yes	No No		Histosol	(A1)	Sandy Redox (S5)	2 cm Muck (A10)
Wetland Hydrology Present? Yes	No	NG (T 45	Histic Ep	ipedon (A2)	Stripped Matrix (SB)	Red Parent Material (TF2)
Remarks: AL			Slack His	Nic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Other (Explain in Remarks)
- TONL NORMUL	Taiwrell ,		Hydroger	Sunce (A4)	Loamy Gleyed Matrix (F2)	
plower + cult	into Fald		Depleted	Below Dank Sumace (A11)	Uppered Manux (F3)	Nu dianta as to constants at
VEGETATION Line selectific games of				n ouriace (A12)	Contract Dark Surface (FI)	HEREIGENES OF INVERSION TO A PORT
TEGETATION - Use scientine names of p	unity.		bandy M	waxy melleten (21) Invent Makriv (24)	Department Date Suffect (F1)	webser disturbed or combine
Turn Charter (Dist -)	Absolute Dominant Indicator	Dominance Test worksheet:	Gaintry G	eyes life annually	Leany patragenes (LD)	Instantion of providing
Inee Stream (Plot size:	A COVER SPECIES? Status	Number of Dominant Species	PORTIGIOUR L	ayar (o present):		
1.		That Are OBL. FACW, or FAC: (A)	Туре:			
2.		Total Nember of Cominant	Depth (inc	hes):		Hydric Soll Present? Yes
3.		Species Across All Strata: (B)	Remarks:			
4			1		ρ)	
	= Total Cover	Percent of Dominant Species			('usn swy "	
Saoling/Strub Stratum (Piot size:)		INK AR OBL, FACW, OF FAC:			/	
1.		Prevalence Index worksheet:	L			
2		Total % Cover of Multiply by:	HYDROLO	3Y		
			Mailand Mer	mloay Indicators		
3.			Deimens fertin	torogy incoronation	aback at that souly)	Secondary Indicators (2 or m
4.		FACW species	Panner V. Under		STREA OF THE ANDIY!	SPORNEY UNAMER LE VI III
5		FAC species x 3 =	Surface \	Water (A1)	vvaler-Steines Leaves (59) (except MLI	KA Water-Stained Leaves (E
	* Total Cover	FACU species x4 =	High Wat	er 1804 (A2)	1, 2, 4A, and 4B)	4A, and 4B)
Plot size:)	7 -	UPL spacies x 5 =	Saturatio	n (A3)	Sett Crust (B11)	Drainage Patterns (B10)
1 Lanim Spp	<u> </u>	Column Totals: (A) (B)	Water Mi	arka (B1)	Aqualic Invertebrates (B13)	Dry-Seeson Water Table
2			Sedimen	Deposits (B2)	Hydrogen Sullide Odor (C1)	Saturation Visible on Aer
3		Prevalence index = B/A =	Drift Dep	paits (83)	Oxidized Rhizospheres along Living Roo	ts (C3) Geomorphic Position (D2
4		Hydrophytic Vegetation indicators:	Algsi Ma	or Crust (84)	Presence of Reduced iron (C4)	Shellow Aquiterd (D3)
5		Dominance Test is >50%	Iron Dep	osits (86)	Recent Iron Reduction in Tilled Soils (Ct) FAC-Neutral Test (D5)
a		Prevelance Index is <1.01	Surface	Spit Cracks (B6)	Stunted or Stressed Plants (D1) (LRR A	Raised Ant Mounds (D6)
		Manhalasiasi Admutationa "Physicia aroundlas	Inundatio	n Visible on Aerial Imagery (87	Other (Explain in Remarks)	Frost-Heave Hummocks
· · · · · · · · · · · · · · · · · · ·		data in Remarks or on a senarate shaet)	Spanialu	Vegetaled Concave Surface /R	8)	
8		Manual as reaction to be over a supportation of sector	Fintel Obano	stinns.	<u></u> т	
9		Transmith Pitch - Version and Frank		- Breesent's Mars 1	a J Blanth (inchani)	
10			Sunace Wate	1710000111/ 1896	Cooper (notes):	
11		Indicators of hydric soll and wetland hydrology must	Weter Table I	resent? Yes N	Depth (inches):	
· · · · · · · · · · · · · · · · · · ·	r Talal Caus-	De present, uness disturbed of problematic.	Saturation Pr	esent? Yes N	o Depth (inches); Weti	and Hydrology Present? Yes
Woody Vine Stratum (Plot size:	* 10001 Lover		(includes cap	Nary Mige) orded Date (electron dated	I served available astado taisan flaw animili	d available
4		Mudenethe din	Liescribe Rec	orada mete (strenu: ĝenĝe, noo	itoring wes, sensi protos, previous inspections).	
		Vegetation				
A		Present? Yes No	Remarks:			
N Rom Countin Link Dansur	= Total Cover		1			
The series of sound in the stratum			1			
			1			
1			ł			
1		•				

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Applicant/Owner:	onjreouniy.	State: WA Sempling Point DH 10
investigator(s): <u>Ed Ser</u>	Section, Town	ahip, Range S29 TJIN R5E
Landform (hiltslope, terrace, etc.):	Local relief (or	incave, convex, none) Slope (%):
Subregion (LRR)	Let:	Long: Deturn:
Boll Map Unit Name: Custer		NWI classification:
Are climatic/ hydrologic conditions on the site t	ypical for this time of year? Yes	No (If no, explain in Remarks.)
Are Vegetation Soit, or Hydrolo	gy significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation Soit, or Hydrold	gy naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach	site map showing sampling (point locations, transects, important features, etc.
Hydrophylic Vegetation Preserv? Yes	la the S	empled Area
Wetland Hydroiony Pasand? Yes	No within a	Wetland? Yes No
Remarks AL		
- HONE NOTA	nel paintell	
pioner + c	Unite Fait	
VEGETATION - Use scientific name	is of plants.	
Tree Stratum (Dist size-	Absolute Dominant Inc	ficator Dominance Test worksheet:
1.		ISDAR Number of Dominant Species
2		
3.		Species Across All Strate: (B)
4		Descent of Dominant Species
Sealing/Shrub Stratum /Dist size	Total Cover	That Are OBL, FACW, or FAC: (A/B)
1		Prevalence Index worksheet:
2		Totel % Cover of: Multiply by:
3		OBL species x1 =
4		FACW species x2 =
5		FAC species x 3 =
Herb Stratum (Plot size:)	* Totel Cover	FACU species x 4 =
1. Lanim Jan	10 1	
2. Agropy and My	1	
3		Prevalence index = B/A =
4		Hydrophytic Vegetation Indicators:
5		Dominance Test is >50%
5		Prevalence ingex is 53.0"
8		data in Remarks or on a separate sheet)
9		Welland Non-Vascular Plants ¹
10		Problematic Hydrophytic Vegetation' (Explain)
11		indicators of hydric soil and wetland hydrology must
Internet Street Obertage and an and	Total Cover	
YVOODY VINE STRETUM (Plot size:	⁽	Musilum adv. Ma
2		Vegetation
······································	* Total Cover	Present? Yes No
% Bare Ground in Herb Stratum	ing. Mangang menghabkan pana melanamak mengerakakan sebut perangah di alga mela ang peranam ana kanam melan sebut m	

10.000	Dartov Comuna	
inches) Color (moist) %	Color (moist) % Type Loc	Texture Remarks
10 104M312		1 min
18 10yn 4/4	3-	ty Ian
		7
Type: C=Concentration, D=Depietion,	RM=Reduced Matrix, CS=Covered or Coated Sand Gr.	sins. ⁷ Location: PL=Pore Lining, M=Matrix,
parts Stati Indicatory: (Application 1 bijetnest (Ad)		2 cm March (A10)
Histic Eninedon (A2)	Strioned Matrix (S8)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Minerel (F1) (except MLRA 1)	Other (Explain in Remarks)
Hydrogen Sullide (A4)	Loamy Gleyed Matrix (F2)	
_ Depleted Below Derk Surface (A11) Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (81)	Depleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gleyed Matrix (54)	Kedőx Depressions (Fő)	unices disturbed or problematic.
estricuve sayer (n present):		
Depth (inches):		Hydric Soll Present? Tes No
		4
/DROLOGY		~
/DROLOGY fedand Hydrology Indicators:		
/DROLOGY fedand Hydrology Indicators: mary Indicators (minimum of one rec Surface Watter (A1)	urret: check all that apply)	Secondary indicators 12 or more required)
/DROLOGY fellind Hydrology Indicators: many Indicators (minimum of one rec Surface Water (A1) Linde Marker Table (A2)	ured: check all that apply) Water-Stained Leaves (59) (except MLR	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, Water-Stained Leaves (B9)
/DROLOGY feStand Hydrology Indicators: intery Indicators (minimum of one rec 	urrect: check all that apoly) Water-Stained Leaves (59) (except MLR 1, 2, 44, and 48) Set Crust (911)	Secondary Indicators (2 or more required)
/DROLOGY reliand Hydrology Indicators: imary Indicators (minimum of one rec Surface Water (A1) High Weter Table (A2) Saturation (A3) Water Marks (B1)	urrest: chack all that apply) 	Secondary indicators (2 or more required) VA Water-Stained Leaves (B9) (MILRA 1, 2, 4A, and 48) Drainage Patients (B10) Dry-Season Water Table (C2)
/DROLOGY /eBand Hydrology Indicators: imary indicators. (minimum of one rec Surface Water (A1) High Weter Table (A2) Saturation (A3) Water Marks (B1) Sediment Decosits (B2)	urred: check all litert apply) 	Secondary Indicators (2 or more required) VAWater-Stained Leaves (89) (MLRA 1, 2, 4A, and 48) Drainage Patterns (810) Dry-Seeson Water Table (C2) Saturation Visible on Aeria Imacery (C9)
/DROLOGY iefand Hydrology Indicators: imary Indicators (minimum of one rec Suface Water (A1) High Water Table (A2) Seturation (A3) Water Marks (B1) Seturation (A3) Water Marks (B1) Drift Deposits (B3)	urred: check all that apply) 	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MURA 1, 2, 4A, and 48) Drainage Patients (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aeriel Imagery (C9) ts (C3) Geemorphic Position (D2)
/DROLOGY feBand Hydrology Indicetors: 	urrect: check all that apply) 	Secondary Indicators (2 or more required) VA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patients (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Thatow Aquistad (D3)
/DROLOGY feBand Hydrology Indicators: innery Indicators (minimum of one rec Surface Water (A1) High Weter Table (A2) Saturation (A3) Weter Marks (B1) Sedment Deposits (B2) Diff Deposits (B3) Aigel Mat or Crust (B4) Iron Deposits (B5)	urrect: check all that apply) 	Secondary Indicators (2 or more required) AWater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aeriel Imagery (C9) ts (C3)Geomorphic Position (D2) Shellow Aquitard (D3) Shellow Table (D5)
/DROLOGY fedend Hydrology Indicators: intery Indicators (Intilinum of one rec Surface Water (A1) High Weter Table (A2) Saturation (A3) Weter Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Aigel Met or Crust (B4) Iron Deposits (B5) Surface Solt Cracks (B6)	urred: check all that apply) 	Secondary Indicators I2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Statistion Visible on Aerial Imagery (C9) ts (C3) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Noutral Test (D5) Raised Ant Mounds (D6) (LRR A)
/DROLOGY fefand Hydrology Indicators: imary Indicators (minimum of one rec Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soit Crocks (B6) Inundation Visible on Aeriel Imager	uured: check all that apply) 	Secondary Indicators (2 or more required) Water-Stained Leaves (89) (MLRA 1, 2, 4A, and 48) Drainage Patterns (810) Dry-Seeson Water Table (C2) Statution Visible on Aerie Imagery (C9) ts (C3) Geomorphic Position (D2) Shatow Aquitard (D3) FAC-Neutral Test (D5) Reised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
/DROLOGY feSind Hydrology Indicators: rimery Indicators (minimum of one rec Suface Water (A1) High Weter Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Agel Met or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inurdation Visible on Aerisi Images Spansely Vagetaled Concave Surfa	ured: check all that apply) — Water-Stained Leaves (59) (except MLR 1, 2, 4A, and 49) — Set Crust (611) — Aquatic Invertebrates (813) — Hydrogen Sulide Odor (C1) — Oxidized Rhizospheres along Living Roo — Presence of Reduced iron (C4) — Recent fron Reduction in Tilled Solis (C6 — Stanted or Stressed Plants (D1) (LRR A) y (87) — Other (Explain in Remarks) too (65)	Secondary Indicators (2 or more required) Water-Stained Leaves (89) (MLRA 1, 2, 4A, and 48) Drainage Patients (810) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Genorphic Position (D2) Site and Ant Mounds (D5) Raised Ant Mounds (D5) (LRR A) Frost-Heave Hummocks (D7)
/DROLOGY feBand Hydrology Indicetors: Istary Indicators (Intinimum of one res Surface Water (A1) High Weter Table (A2) Saturation (A3) Weter Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Agel Met or Cruss (B4) Iron Daposits (B5) Surface Soli Crocks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfa Ind Observations:	urrect: chack all that apply) 	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48) Drainage Patterns (B10) Dry-Season Water Table (C2) Staturation Visible on Aerial Imagery (C9) ts (C3)Geomorphic Position (D2) Shallow Aquited (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Froat-Heave Hummocks (D7)
/DROLOGY researd Hydrology Indicators: innery indicators (minimum of one rec Surface Water (A1) High Weter Table (A2) Seturation (A3) Weter Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Met or Crust (B4) Iron Deposits (B5) Surface Soit Cracks (B6) Inurdation Visible on Aerisi Imager Sparsely Vegetated Concave Surfa feld Observations: unface Water Present? Yee	urred: check all that apply) 	Secondary Indicators (2 or more required) VAWater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)Drainage Patients (B10)Dry-Seeson Water Table (C2)Stutation Visible on Aerial Imagery (C9) ts (C3)Genomphic Position (D2)Shallow Aquitard (D3) i)FAC-Neutral Test (D5) i)FAC-Neutral Test (D5) i)FAC-Neutral Test (D5) i)FRot-Heave Hummocka (D7)
/DROLOGY /efaind Hydrology Indicators: timary indicators (triinimum of one rec Surface Water (A1) High Weter Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aeriel Imager Sparwely Vegetated Concave Surfa Ield Observations: Water Table Present? Yes	urred: check all that apply) 	Secondary Indicators I2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
/DROLOGY fe5and Hydrology Indicators: timery Indicators (minimum of one rec Surface Water (A1) High Weter Table (A2) Seturation (A3) Weter Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Agel Met or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Invindation Visible on Aerist Imager Spansely Vegetated Concave Surfa faid Observations: undace Water Present? Yes aturation Present? Yes	Uterest: check all that apply) Uterest: check all that apply) Water-Stained Leaves (69) (except MLR 1, 2, 4A, and 49) Set Crust (811) Aquatic Invertebrates (813) Hydrogen Sulide Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced iron (C4) Recent fron Reduction in Tilled Solie (C6 Slunted or Stressed Plents (D1) (LRR A) y (87) Other (Explain in Remarks) oo (86) No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): No No No	Secondary Indicators (2 or more required) Water-Stained Leaves (89) (MLRA 1, 2, 4A, and 48) Drainage Patients (810) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C9) ts (C3) Genorphic Position (D2) Shatow Aquisatd (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D5) (LRR A) Frost-Heave Hummocks (D7) und Hydrology Present? Yes No
YDROLOGY Vestiand Hydrology Indicators: trimery Indicators (minimum of one res _ Surface Water (A1) _ High Weter Table (A2) _ Saturation (A3) _ Weter Marks (B1) _ Seturation (A3) _ Weter Marks (B1) _ Seturation (A3) _ Jund Crocks (B2) _ Drit Deposite (B3) _ Algel Met or Crust (B4) _ Iron Daposite (B5) _ Surface Soit Cracks (B8) _ Involution Visible on Aerisi Imager _ Involution Present? _ Yes _ Involution Visible on Aerisi Imager _ Involution Visible	Uursct: chack all that apply) Uursct: chack all that apply) Water-Stained Leaves (69) (except MLR 1, 2, 4A, and 48) Set Crust (811) Aquatic Invertebrates (B13) Hydrogen Sulfde Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced iron (C4) Recent fron Reduction in Tilled Solis (C6 Stunted or Stressed Plants (D1) (LRR A) (S1) (B5) No Depth (inches): / 5	Secondary Indicators I2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Statuation Visible on Aerisi Imagery (C9) ts (C3) Geomorphic Position (D2) Shatow Aquitard (D3) FAC-Neural Test (D5) Raised Ant Mounds (D8) (LRR A) Frost-Heave Hummocks (D7) sind Hydrology Present? Yes No f available:
YDROLOGY Vedand Hydrology Indicators: trimary Indicators (Intinimum of one rec Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Algel Met or Crust (B4) Itron Deposits (B5) Surface Soit Crocks (B6) Surface Soit Crocks (B6) Inundation Visible on Aerisi Imager Sparrwey Vegetated Concave Surfa Vater Table Present? Yes aturation Present? Yes aturation Present? Yes aturation Present? Yes escribe Recorded Data (stream gauge	Uurest: check all that apply Water-Stained Leaves (69) (except MLR 1, 2, 4A, and 48) Set Crust (811) Aquatic Invertebrates (813) Hydrogen Suifde Cdor (C1) Oxidized Rhisspheres aborg Living Roo Presence of Reduced Iron (C4) Recent fron Reduction in Tilled Solis (C6 Stunted or Stressed Plants (D1) (LRR A) (R1) Other (Explain in Remarks) os (68) No Depth (inches): / 5 No Depth (inches): / 5 Netter (inches): _	Secondary Indicators I2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Statutation Visible on Aerial Imagery (C9) ts (C3)Geomorphic Position (D2) Shatow Aquitard (D3) i)FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocka (D7) and Hydrology Present? Yes No # available:
YDROLOGY Vedand Hydrology Indicators: trimary Indicators (Infinitrum of one rec Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Algel Met or Crust (B4) Iron Daposits (B5) Surface Soit Crocks (B6) Invindition Visitie on Aerisi Imager Surface Water Present? Yes aturation Present? Yes Invindition Present? Yes Invindies coglidery fringo escribe Recorded Data (stream gauge	Uurest: check all that apply)	Secondary Indicators I2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Statutation Visible on Aerial Imagery (C9) ts (C3)Geomorphic Position (D2) Shatow Aquitard (D3) i)FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) and Hydrology Present? Yes No # available:
YDROLOGY Vedand Hydrology Indicators: Trimery Indicators (minimum of one rec Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Dritt Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Solt Crocks (B6) Intradict Crocks (B6) Intradict Crocks (B6) Intrade Valet Present? Yes Intradict Solt Present? Yes Instruction Present? Yes	Uurest: check all that apply) Uurest: check all that apply)	Secondary Indicators (2 or more required) Wate-Stained Leaves (BD) (MLRA 1, 2, 4A, and 4B)

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Interim Version

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revisiter Salun Iverth	<u> </u>	City/County		mysualle Sempling Date: 2-21-17
				State: WA Sempling Point: DPE 11
solor(s): Zd Scwall		Section, To	waship, Ra	INDU SZATJIN REE
m (tillalope, terrace, etc.):		Local relief	(concave.	convex, none)Stope (%):
gion (LRR):	Lat			Long: Datum:
ap Unit Name: Cyster				NWI classification:
matic / hydrologic conditions on the site typical for	this time of yes	sr? Yes	<u> </u>	(If no, explain in Remarks.)
igetation Soil, or Hydrology	_ significantly	disturbed?	Are	"Normal Circumstances" present? Yes No
egetation Soit, or Hydrology	_ naturally proi	blematic?	(if n	eeded, explain any answers in Remarks.)
MARY OF FINDINGS - Attach site ma	p showing	samplin	g point i	ocations, transects, important features, etc.
THE VECONTON PROAM? Yes	No /			
c Sol Present? Yes	No	2 18 12	is a Wette	Anda
and Hydrology Present? Yes	No	with		ner 145
inte - Above Normal	rowt	=11	_	
plowed + culti	intel	Fral	0	
TATION - Use scientific names of plu	ants.			
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Strature (Plot size:)	% Cover	Species?	Status	Number of Dominant Spacies
******				That Are OBL, FACW, or FAC: (A)
	danan, inayong-subdita			Total Number of Dominant
				aparate rucius en auna
		= Total Co	ver	That Are OBL, FACW, or FAC:
o/Shrub Stratum (Plot size:)				
				Total & Cover of Multiply by
				OBL species x1 =
				FACW species x 2 =
				FAC spacies x 3 =
Stratum (Dief sive-		* Tolei Co	ver	FACU species x4 =
Torancun offinal	10		NI	UPL species x5 *
Julia man	3		FALL	(A) (S)
Langha spp	_ 5_		MI	Prevalence index = B/A =
<i>[</i> **				Hydrophytic Vegetation Indicators:
				Dravalence Index is <3.01
			****	Morphological Adaptations' (Provide supporting
				dats in Remarks or on a separate street)
				Welland Non-Vescular Plants
				Tedestore of hudde sell and wattend huddessen with
		<u></u>		be present, unless disturbed of problematic.
		= Total Cov	er	
dv Vite Strakum (Piot size				Hydrophytic
dv Vite Stratum (Plot size:)				Vegetation
dv Vide Stratum (Plot size:)				Braser7 Yes No.
dy Vine Stratum (Piot sze:)		Total Cov		Present? Yes No
N <u>V Vine Stratum</u> (Piot sze:)	······································	Total Cov		Present? Yes No

rofile Description: (Describe to the	depits needed to document the indicator or confirm	1710 20001100	or indications.)
Depth <u>Matrix</u>	Redax Feetures		
nches) Color (moist) %	<u>Color (mpist) % Type' Loc'</u>	Texture	Remarks
12 1042212		rom	
18 10YA 3/L	/	2 miles	1-
		-	
ype: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered or Coated Sand Gr	aine ² Loo	etion: PL=Pore Lining, M=Matrix
, Philippidi (AT)	bandy Redox (55)	2 cm	NUCK (ATU)
risec copecon (A2)	Supper Maria (58)	Het	rarens waterial (TP2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Othe	r (Explain in Remarks)
myarogen Sumae (A4)	Loanny Gleyed Matrix (F2)		
_ Dapleted Below Dark Surface (A11,) Depleted Matrix (F3)		
Thick Dark Surface (A12)	Redox Dark Surface (F8)	Tridicator	s of hydrophytic vegetation and
_ Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetlar	to hydrology must be present,
_ Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unices	a disturbed or problematic.
estrictive Layer (If present):			
Туре:		1	
Depth (inches):		Hydric Soll I	Present? Yes No
	Custa sels		
Interfest	Custa sels		
emarks: DROLOGY Willand Hydrology Indicators: inoxy Indicators: (minimum of one no	Cusha sels	3am	day indicators (2 or more neutret)
emarks: DROLOGY villand Hydrology Indicatora: imary (udkatora (minimum of one roo	Custu scis	<u>Secon</u>	dary indicators (2 or more resulted)
emarks: DROLOGY Willand Hydrology Indicators: Imary Indicators (Internation of one roo Surface Water (A1)	Cush scl wred, check all that apply) Water-Stained Leaves (B9) (except MLF	\$econ LA W	dary indicators (2 or more moutest) and-Stained Leaves (BB) (MLRA 1, 2,
emarks: DROLOGY visiand Hydrology Indicators: imary Indicators (minimum of one req Surface Water (A1) _ High Weter Table (A2)	Cushu sels uned, check all that apply) Water-Stained Leaves (B9) (except MLF 1, 2, 4A, and 4B)	\$econ tA W	dary lockcelors (2 or more required) arer-Stained Leaves (BB) (MLRA 1, 2, 4A, and 4B)
emarks: /DROILOGY witand Hydrology Indicators: imary indicators (minimum of one req Surtisce Water (A1) High Water Table (A2) Saturation (A3)	Lured, check all that apply) — Water-Stained Leaves (B9) (except MLF 1, 2, 64, and 48) — Set Crus (B11)	<u>Secon</u> ta Vr	dary Indicators (2 or more measted) aner-Stained Leaves (BB) (MLRA 1, 2, 4A, and 48) ainsge Patterns (S10)
smarks: DROLOGY villand Hydrology Indicators: imary Indicators (minimum of one reg Surface Water (A1) – High Water Table (A2) – Saturation (A3) – Water Marks (B1)	Cush scl Weter-Stained Leaves (B9) (except MLF 1, 2, 4A, and 4B) Set Crus (B11) Aquatic Invertebrates (B13)	Secon tAW Dr Dr	dary Indicators (2 or more resulted) ater-Skined Leaves (B9) (MLRA 1, 2, 4A, and 43) ainage Patients (S10) y-Season Water Table (C2)
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emarks: //DROLOGY #Band Hydrology Indicators: timary Indicators (minimum of one roo Surface Water (A1) – High Weter Table (A2) – Staturation (A3) Water Marks (B1) – Sedment Deposits (B3) – Aigel Met or Crust (B4) – Iron Deposits (B3) – Surface Solt Gracks (B6) – Inundation Visitite on Aeriel Imagen – Spansky Vegetaled Concave Surfa sid Observations: urface Water Present? Yes	Cush Scl ured. check all that apply)		dary lockostors (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) atingp Patterns (B10) y-Sesson Water Table (C2) startion Vielble on Aerial Imagery (C9) somorphic Position (D2) wildow Aquitard (D3) C-Neural Test (D5) sieed Ant Mounds (D5) (LRR A) ost-Heave Hummocks (D7)
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emarks: (DROLOGY Initial Hydrology Indicators: imary Indicators (Ininimum of one reg Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Dritt Deposits (B3) Aigel Mat or Crust (B4) Iron Deposits (B3) Surface Soli Cracks (B6) Inurdation Visible on Aeriel Imagen Sparsely Vegetsted Concave Surfa eld Observations: Vese tatracto Present? Yes tatrace Present? Yes tatrace Present? Yes tatrace Present? Yes tatrace Soli Cracks (B6) Introdo Present? Yes tatrace Present? Yes tatrace Present? Yes tatrace Present? Yes tatrace Vese free Present? Yes tatrace Vese Present? Yes tatrace Present? Yes	Cush Scl		dary Indicators (2 or more resulted) ater-Steined Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainsge Patterns (B10) y-Sesson Water Table (C2) stration Vielble on Aertal Imagery (C9) somophic Possition (D2) allow Aquitard (D3) C-Neutral Test (D5) aied Ant Mounds (D5) (LRR A) ost-Heave Hummocks (D7)
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US Army Corps of Engineers

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S. the North	5 m	man 110 mar 7 - 71-17	Profile Description: (Describe to the depth needed to document the indicator or confirm the aba
Projecosne	Cay/County: 1		Depth Matrix Redax Features
Applicant/Owner:		State: WIT Sempling Point PIFIZ	(inches) Color (moist) % Color (moist) % Type Loc' Textu
Investigator(s): 22 SCWG	Section, Township, I	Range S24 TJIN RSE	10 1041-312 Shy
Landiom (hitsions terrace sic)	Looni relief (concess	s convex orms) Sione (%)	18 104n3/6 10mg
Schemin (DO)			
Subregion (LKR)	Lat	Long: Detum:	
Soll Map Unit Name: Lys TEA		NWI dessification:	
Are climatic/ hydrologic conditions on the site typical	I for this time of year? Yes No	(If no, explain in Remarks.)	
Are Vegetation - Soil or Hydrology	significantly disturbed? Ar	e 'Normal Circumstances' present? Yes 🖌 No	
Are Vension Roll and Muture	antically ambienetic?		
Alle Vegetalent	mental interests brockerstance (in	необлос, ехрина акту актичествих ссетнакса.)	
SUMMARY OF FINDINGS - Attach site	map showing sampling point	l locations, transects, important features, etc.	
[Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.
Hydrophylic Vegelation Present? Yes	No la the Sampl	ari Arna	Piptic Solit indicators: (Applicable to all LIVEs, unlast offerents noted.)
Hydric Sol Present? Yes	No Z within a West	Innut? Yes No	Histosol (A1) Sandy Redox (S5)
Watishd Hydrology Present? Yes	_ No No		Histic Epipedon (A2) Stripped Matrix (S8)
Remarks - AL and Ala Cart		an	Stack Histor (A3) Loamy Mucky Mineral (F1) (except MURA 1)
aloued the	I have the	1	Depleted Balance (reg) Lossing Useyee (Addit)
piener + cui	FILMO PRAIO		Think Dank Surface (A12) Redox Dark Surface (FR)
VEGETATION Lise scientific names of	f niante		Sandy Mucky Mineral (S1) Daniated Dark Surface (F7)
	Abasida Damissat Istari	Demission Text weekshoet	Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Tree Strature (Plot size:)	% Cover Species? Stetus		Restrictive Layer (if present):
1.	ALEXAND STREET, AND STREET,	That Are OBL EACH or EAC: (A)	Type
1		Internet other i north, of internet with	Danth (inches)
-		Total Number of Dominant	
.		_ Species Across All Strate: (B)	remenus:
•		Percent of Dominant Species	ruch santa su
Sanling/Skeph Stratum /Eint ciza	- Total Cover	That Are OBL, FACW, or FAC: (A/B)	[-3].49
Sectors Street Street	<i></i>	Braudanan Indeu wardathaali	
1		Traveloc Hiller Workshows	HYDROLOGY
<		I DIAL 74 COVER OF	
3.		USL species	www.unitering.org/www.unitering.
4.		FACW species	
5		FAC species x3 =	Surface Water (A1) Water-Steined Leaves (89) (except MLRA
	Total Cover	FACU species x 4 =	High Water Table (A2) 1, 2, 4A, and 48)
Pleto Stratum (Plot sze:	(1)	UPL species x 5 =	Saturation (A3) Set Crust (B11)
1	<u>Lo</u> <u>C</u> =	Column Totals: (A) (B)	Water Marks (B1) Aquatic Invertebrates (B13)
2		-	Sediment Deposits (B2) Hydrogen Suilide Odor (C1)
3		Prevalence index = B/A =	Drift Depusits (B3) Oxidized Rhizospheres along Living Roots (C3)
4.		Hydrophytic Vegetation Indicators:	Agel Mat or Crust (B4) Presence of Reduced Iron (C4)
5.		Dominance Test is >50%	Iron Deposits (85) Recent Iron Reduction in Tilled Solts (C8)
6		Prevalence Index is \$3.01	Surface Soli Cracks (B6) Stunied or Stressed Plants (D1) (LRR A)
7		Morphological Adaptations' (Provide supporting	Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks)
8		data in Remarks or on a separate sheet)	Sparsely Vegetated Concave Surface (B8)
0		Wetland Non-Vascular Plants'	Field Observations:
10		Problematic Hydrophytic Vegetation' (Explain)	Surface Water Present? Yes No Depth (inches):
10		Indicators of hydric soil and wattand hydrology must	Weter Table Present? Yes No Depth (inches);
11.		 be present, unless disturbed or problematic. 	Saturation Present? Yes No Depth (inches); Wetland Hydr
Woody Vise Stratum (Plot ana	Total Cover		(includes capitary fringe)
4		Budarah ata	Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inspectiona), if availab
·		Vacatation	
4 .		Present? Yes No	Remarks
M Rose Count in Linds Obstune	Total Cover		1 In
	alangan watan katan katan katan Mandalan katan katan ang manana matan atan penganakan katan katan pengan sampay		Nº 14/107
Kemana:			

Type Loc Texture Remarks Suly In Jun 5-²Location: PL=Pore Lining, M=Matrix or Costed Sand Grains. ____2 cm Muck (A10) _____Red Defent Material (TF2) _____Vother (Explain in Remarks) (except MLRA 1) ³Indicators of hydrophytic vegetation and wetland hydrology must be present. unless disturbed or problematic. Hydric Soll Present? Yes _____ No ___ saly suls Secondary Indicators (2 or more required) Water-Stained Leaves (89) (MLRA 1, 2, (89) (except MLRA 4A, and 48) Drainage Patterns (B10) ____ Dry-Season Water Table (C2) (B13) Saturation Visible on Aerial Imagery (C9) r (C1) s slong Living Roots (C3) ____ Geomorphic Position (D2) ____ Shallow Aquiterd (D3) iron (C4) n in Tillet Solls (C8) ____ FAC-Neutral Test (D5) ____ Raised Ant Mounds (D5) (LRR A) ients (D1) (LRR A) arks) Froat-Heave Hummocks (D7) No____ Wetland Hydrology Present? Yes ____ ious inspections), if available:

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Sampling Point: _

	n nounianis, vanvys, and codet Region		автар
Project/Site Satter North S City/County:	Marysville Sampling Data 2-21-17	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicat	tons.)
plicant/Owner	State: WA Sempling Point DP#17	(inches) Color (moist) % Color (moist) % Type Loc' Texture	F
Antipologiest Sel Sewell Section Town	NO BOOM SZATTIN RSE	12 10/n2/2 Jaly /a	
		15 10/h3/6	
norm (wiskope, terrace, etc.): Local relief (c	Sigpe (%);		
vegion (LRR)	Long: Datum:		
Il Map Unit Name: CVSTCA	NWI classification:		
se climatic / hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks.)		
re Vegetation, Soit, 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, transacts, important features, etc.	Tute: CoConcentration DeContestion Deletion of Mathiev Concentration Contest Services	
Monormalia (Annumentan Disanami)		There is a second state of the second state of	
Hydric Sol Present? Ves No	ampled Area	Historol (A1) Sandy Redox (S5) 2 cm Muck (A	10)
Wattand Hydroiogy Present? Yes No	Wetland? Yes No	Histic Epipedon (A2) Stripped Matrix (S8) Red Bartent M	laterial
Remarks At	1 waarne aan waarne daar waard 1 is a faar - 100 - 100 waarne mee balant waard daar waard daar waard daar yn yn	Black Hielic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Cher (Explain	t in Re
- Moove Normel raintell	,	Hydrogen Sulfide (A4) Loanny Gleyed Matrix (F2)	
ploment culture Fralo	•	Depleted Below Derk Surface (A11) Depleted Matrix (F3)	
FORTATION _ Lies estentific names of slasts	in the second	I (SCR LIVING OLITINCE (A12)	opnytic oov m
	feeles Descharge Testandarback	Sandy Gleved Matrix (S4) Redox Depressions (F8) Index disturba	nd or or
(res. Stratura (Plot size;) % Cover Socies? 2		Restrictive Layer (if present):	
	There are ORI FACW or FAC. (A)	Twoe:	
		Depth (inches):	Yes
	Total Number of Dominant 2	Demada:	
***************************************	Species Across All Sirana; (B)		
- Total Course	Percent of Dominant Species	Custa sult	
ing/Strub Stratum (Ptot size:)	That Are OBL, FACW, or FAC: (A/B)		
	Prevalence Index worksheet:		
	Total % Cover of: Multiply by:	HYDROLOGY	
	OBL species x1 #	Welland Hydrology Indicators:	
	FACW species x2 =	Primary indicators (minimum of one required; check all that apoly) Secondary Indic	cators (
	FAC species x 3 *	Surface Water (A1) Water-Stained Leaves (89) (excent MLRA Water-Stain	ned Les
- Total Pour	FACU apecies x4=	High Water Table (A2) 1. 2. 4A. and 4B) 4A. and	48)
arb Stratern (Piot size:)	UPL snacies x5=	Saturation (A3) Set Crust (B11) Drainage P	atlems
Tangeon officiale 10 1		Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season	a Wate
Datty's genera 10	ALU (D)	Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Seturation	visible
	Prevalence index = B/A =	Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic	c Posil
	Hydrophytic Vegetation indicators:	Algel Met or Crust (B4) Presence of Reduced Iron (C4) Shallow Aq	uitard (
	Dominance Test is >50%	Iron Deposits (85) Recent Iron Reduction in Tilled Solis (C6) FAC-Neutra	ai Test
	Prevalence Index is \$3.0 ¹	Surface Soli Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Reised Ant	Mound
	Morphological Adaptations' (Provide supporting	Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) Froat-Heav	e.Hum
	dats in Remarks or on a separate sheet)	Sparsely Vegetaled Concave Surface (B8)	
	Weitand Non-Vascular Plants'	Field Observations:	1
, 	Problematic Hydrophytic Vegetation' (Explain)	Surface Water Present? Yes No Depth (inches);	
и. 	Indicators of hydric soil and wetland hydrology must	Weiter Table Present? Yes No Depth (inches);	
1).	be present, unless disturbed or problematic.	Saturation Present? Yes No Daoth (inches); Wetland Hydrology Present	? Ye
Wouth Vise Stratum (Biol size:)		(includes capitary fringe)	
<u>10.01 102 208801</u> (CAN 928.	Manufacture and a state	Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inspections), if available:	
	Vegetation		
	Present? Yes No	Remarks:	
Bere Ground in Herb Stratum			
temarka:	nagan saya mada manana ka manana ka manana ka manana ka manana ka manana ka manana manana manana manana manana m	No indials	
	1		

Redox Festures redox Festures or (mojet) <u>4</u> Type Lor Saly /m Remarks em 5 M ed Matrix, CS=Covered or Costed Sand Grains. ²Location: PL=Pore Lining, M=Matrix, ie liverie Boli ____ 2 cm Muck (A10) ndy Redax (S5) ___ Red Barent Material (TF2) ipped Matrix (SB) _ Other (Explain in Remarks) erny Mucky Mineral (F1) (except MLRA 1) anty Gleyed Matrix (F2) plated Matrix (F3) dox Dark Surface (F6) ³Indicators of hydrophytic vegetation and pleted Dark Surface (F7) watiand hydrology must be present, unless disturbed or problematic. dex Depressions (F8) Hydric Soll Present? Yes _____ No ____ Custa suls Secondary Indicators (2 or more required) all that apply) Water-Stained Leaves (89) (except MLRA Water-Stained Leaves (B9) (NLRA 1, 2, 1, 2, 4A, and 4B) 4A, and 48) Selt Crust (B11) ____ Drainage Patlerns (B10) Aquatic Invertebrates (B13) Dry-Seeson Water Table (C2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Presence of Reduced Iron (C4) Shallow Aquitard (D3) FAC-Neutral Test (D5) Recent fron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Reised Ant Mounds (D6) (LRR A) Other (Explain in Remarks) ___ Frost-Heave Hummocks (D7) / Depth (inches): ____Depth (inches): ____ Depth (inches): Wetland Hydrology Present? Yes _____ No ____ well, serial photos, previous inspections), if evailable: No industs

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Interim Version

Sampling Point:

Applicant/Owner:		State:	A sempling Point P# 1 L-(
Investigator(s):ZAS	Section, 7	ownship, Range: <u>S24 T</u>	TIN REE
Landform (hillslope, terrace, etc.):	Local reli	of (concave, convex, none).	Stope (%):
Subregion (LRR)	Lat	Long:	Datum:
Soll Map Unit Name: Custor		NWI class	ification:
Are climetic / hydrologic conditions on the s	ite typical for this time of year? Yes _	No (If no, explain is	Remarks.)
Are Vegetation, Soit, or Hyd	irology significantly disturbed?	Are "Normal Circumstances	r present? Yes No
Are Vegetation Soil, or Hyd	rology naturally problematic?	(if needed, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS - Atta	ch site map showing sampli	ng point locations, transec	ts, important features, etc.
Hydrophylic Vegetation Present?	Yes	he Sampled Area	
Welland Hydroinov Present?	Yas No Wit	hin a Wetland? Yes	No
Remarks:			
- 190 VL NO	mai raintall	1.1	
pioner +	CUTTING PA	10	
VEGETATION Use scientific na	mes of plants.		
Tress Sinstein /Diot sins-	Absolute Dominar	It Indicator Dominance Test we	wisheet:
1 THE SERVICE (PROX SIZE:) <u>A Cover Species</u>	Land Am OBL FACH	Bpecies
2.			, u sau (v)
3		Total Number of Don Species Across All S	ninert Z (B)
4.			
	= Totel C	over That Are OBL, FACV	V, or FAC: (A/B)
Sapinu/Shrub Stratum (Plot size:	<u> </u>	Province Index o	
2		Total & Cover o	f Multiply by:
3		OBL species	x1 =
4		FACW species	x2*
5		FAC species	-16 x3= 120
Marth Otrophon (Diel sine)		over FACU species	5/ x4= 200
1 ASCANTON 1	cars 40	FAL UPL species	7 x5=
2 Pachula ala	tyta : 50	FALL Column Totals: 7	(A) <u>5 CO</u> (B)
3		Prevalence ind	** = B/A = <u>5.55</u>
4.		Hydrophytic Yegeta	tion indicators:
5		Dominance Test	is >50%
6		Prevelence Inde	x is ≤3.01
7		Morphological A data in Rema	daptations (Provide supporting sks or on a separate sheat)
6		Wetland Non-Ve	scular Plants'
10		Problematic Hyd	rophytic Vegetation' (Explain)
11.		Indicators of hydric	soli and wetland hydrology must
	* Total Cr	wer	iaus und di procedinanc.
Woody Vine Stratum (Plot size:)		
1,			
2.		Present?	Yes No
% Bare Ground in Herb Stration	* Total Co) West	4
in bere clouid in this ceduality			

Depth	Matrix	Redox Featur	65	
(IC) (S)	Color (morst)	A COLOR (MOHR) 75		exture Nemarks

			-	
	rentration DeDeniatio	n RidsReduced Matrix CS=Cruen	ed or Costed Sand Grains	² Location: Di sense i iting Atablatria
verie soll ind			Apt.)	Indicators for Problematic Hedde Solle
Histosot (A	1)	Sandy Redox (S5)		2 cm Muck (A10)
Histic Frim	idon (A2)	Stripped Matrix (SR)		Red Parent Material (TF2)
Rinch Histo	(A3)	Longy Mucky Mineral /	F1) (autoot MLRA 1)	Other (Explain in Remarks)
iturinnen S	Sullicie (AA)	Loamy Glauari Matrix /	2)	and a set of the set o
Depieteri R	alow Dark Surface /A	(11) Deniated Mattiv (F3)		
Third: David	Surface (&12)	Perior Depreter master (19)	n	hadicative of hudinophylic venetation and
Condu Marin	in Minerel (S1)	Denisted Dark Surface	/) (67)	walland burinions mist be present
Sandy Glas	and Matrix (SA)	Pador Depressions /ER	(* /))	unless disturbed or prohibitination
entrictive I a	ar (if present):	TOPUA LOUIS (FO	<u> </u>	w mane analytic of providing the
Type:	an fu bundantit			
	14 mainteoileana ann an 1611 i Staineana ann an b	and the second design of the s	1.	
Liepan (inche	:=).			
		ι-		• `)
DROLOG	٢	ι •	3	
DROLOG	f logy Indicators:		<i></i>	
/DROLOG	Y Nogy Indicators: prs. (minimum of one r	required; check all that apply)		Secondary Indicators (2 or more required)
(DROLOG) Indiana Hydro Imacy Indiana Surface Wa	Y logy Indicators: prs (minimum of one r ater (A1)	required, check all that apply) Water-Stained Lea	Nes (B9) (except MLRA	Secondary Indicators (2 or more required)
(DROLOG) Internet Indicate Limery Indicate Surface We High Water	Y Vicgy Indicators: prs. (minimum of one r ster (A1) * Table (A2)	required: check all that apply) Water-Steined Lea 1, 2, 4A, and 4	ves (B9) (except MLRA B)	Secondary Indicators (2 or more required)
/DROLOG Intelland Hydro Intelland Hydro Intelland Hydro High Water Saturation	Y Hogy Indicators: pra (minimum of one r ster (A1) Table (A2) (A3)	required: check all that apply) Water-Steined Lea 2, 4A, and 4I Set Crust (B11)	ves (B9) (except MLRA B)	Secondary Indicators (2 or more required)
/DROLOG Melland Hydro rimery Indicati Surfece We High Water Saturation Water Mark	Y logy Indicators: cta (trinkmum of one r ster (A1) 'Table (A2) (A3) (A3) (a (B1)	required; check all that apply) Water-Steined Lea 1, 2, 4A, and 4 Set Crust (B11) Aquetic Invertebrat	ves (89) (except MLRA 8) es (813)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 48) Drainoge Patients (B10) Dry-Seeson Water Table (C2)
/DROLOG Imacy Indicate Surface We High Water Saturation Water Mark Sediment D	Y higgy Indicators: pra (minimum of one r ster (A1) Table (A2) (A3) (a (B1) beposite (B2)	required: check all that apply) 	ves (86) (except MLRA 8) les (813) 3dor (C1)	Secondary indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainoge Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C6
/DROLOG` Intern Indicate Surface Wa High Water Saturation Saturation Sadiment D Drift Dapon	Y viogy Indicators: p(s. (minimum of one r ster (A1) Table (A2) (A3) ts (B1) Deposits (B2) tts (B3)	required: check all that apply) Water-Steined Lea 1, 2, 4A, and 41 Set Crust (B11) Aquetic Invertebrat Hydrogen Suilded Oxidized Rhizaeh	ves (89) (except MLRA 8) les (813) odor (C1) eres along Living Roots (C)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 48) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C6 3) Geomorphic Position (D2)
/DROLOG Netland Hydro imary Indicate Surface Wa High Water Seturation I Water Mari Seturation I Drift Depos Alogi Mat o	Y Hogy Indicators: pts (ntihingun of one r ster (A1) Table (A2) (A3) sc (B1) Deposits (B2) its (B3) r Crust (B4)	required, check all that apply) 	ves (89) (except MLRA 8) des (813) der (C1) eres along Living Roots (C) add tron (C4)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 48) Drainage Patients (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C4 Geomorphic Position (D2) Shatow Acklard (C03)
/DROLOG Helland Hydro imacy Indicative Surface Water High Water Saturation i Water Mark Sediment D Drift Depos Algal Mat 0 Iron Depos	Y Hogy Indicators: ptg (minimum of one r ster (A1) Table (A2) (A3) (A3) (A3) esposite (B2) its (B3) r Crust (B4) in (B5)	required: check all that apply) 	ves (86) (except MLRA 8) les (813) Sdor (C1) eres along Living Roots (C3 sed Iron (C4) tion in Tillest Solie (C4)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (NLRA 1, 2 4A, and 48) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C8 Geomorphic Position (D2) Stailow Aquitard (D3) E40-Marriet Test (D5)
/DROLOG Heliand Hydro timery Indicati Seturation (Water Mari Sediment D Drift Depos Algel Met o tron Depos Soutine Se	Y iogy Indicators: ater (A1) Table (A2) (A3) (a (B1) beposite (B2) its (B3) it Crous (B4) its (B5) H Croust (B4)	required: check all that apply) 	ves (80) (except MLRA 8) bdor (C1) eres along Living Roots (C) ved Iron (C4) tion in Tilled Solis (C8) d Broke (U14 C81 A)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 48) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Rained Ant Monde (C6 (1 B = A))
/DROLOG imary indicati Surface Wa High Water Saturation (Water Mari Sediment D Drift Depos Algal Mat o tron Depos Surface So	Y logy Indicators: pts (ntilohmum of one r ater (A1) Table (A2) (A3) sc (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) H Crecks (B6)	required, check all that apply) 	ves (89) (except MLRA 8) bes (813) bdor (C1) eres along Living Roots (C) and Iron (C4) tion in Tilled Solie (C8) d Plents (D1) (LRR A)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 48) Drainage Patterns (B10) Dry-Secon Water Table (C2) Saturation Visible on Aerial Imagery (Ci Geomorphic Position (D2) Shaltow Aquitard (D3) FAC-Neutral Test (D5) Reised Ant Mounds (D6) (LRR A)
/DROLOGY Nelland Hydro timery Indicati Surfece Wi High Water Sectoration Water Mari Sectiment D Drift Depos Agal Mat 0 Tron Depos Surface So Inundation	Y Hogy Indicators: pts (minimum of one r ater (A1) Table (A2) (A3) (s (B1) Deposite (B2) His (B3) r Crusk (B4) His (B5) H Cracks (B6) Visible on Aeriel Imag	required: check all that apply) Water-Steined Lee 1, 2, 4A, and 4 Set Crust (B11) Aquatic Invertebrat Hydrogen Suilide (Oxidized Rhizoeph Presence of Reduc Recent from Reduc Stanted or Stresse gery (B7) Other (Explain in R	ves (89) (except MLRA 8) bis (813) bdor (C1) eres along Living Roots (C3 ed Iron (C4) bion in Tilled Solle (C8) of Plants (D1) (LRR A) (emarks)	Secondary Indicators (2 or more resulted) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 48) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C8 Geomorphic Position (D2) Shallow Aquiterst (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocka (D7)
/DROLOG1 ivitiand Hydro Imary Indicat Surface Wi High Water Satirantion Sediment I Softment Depos Agel Met o Iron Depos Surface So Invandation Sparsely Vi	Y iogy Indicators: ater (A1) Table (A2) (A3) (a (B1) beposite (B2) its (B3) it (Crust (B4) its (B5) it (Cracks (B6) Visite on Aeriel Imag agetated Concave Su	required: check all that apply) — Water-Steined Lea 1, 2, 4A, and 4I — Sett Crust (813) — Hydrogen Suitide — Undrized Rhizoeph — Presence of Reduc — Recent fron Reduc — Stunded or Stresse gery (87) — Other (Explain in R urface (86)	ves (88) (except MLRA 8) les (813) Jodor (C1) eres along Living Roots (C and Iron (C4) tion in Tilled Solie (C8) d Plants (D1) (LRR A) emarks)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 48) Drainege Patterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shaltow Aquitand (D3) FAC-Neutral Test (D5) Reised Ant Mounds (D6) (LRR A) Frost-Heave Hummocka (D7)
VDROLOGY Velland Hydro Imary Indivativ Surfece Wit Saturation Saturation Saturation Saturation Aga Mato Capoo Iron Depos Surface So Inundation Sparsely Vield Observat	Y logy indicators: tra (ninimum of one r ster (A1) Table (A2) (A3) (a (61) beposite (B2) its (B3) its (B3) its (B3) it Crust (B4) its (B5) it Crust (B4) it Crust (B4) its (B5) it Crust (B4) its (B5) it Crust (B4) its (B5) it Crust (B4) its (B5) it Crust (B4) it Crust (B5) it Crust (B5) it Crust (B4) it Crust (B5) it Crust (B5) it Crust (B6) it Crust	required; check all that apply) — Water-Steined Lea 1, 2, 4A, and 4 — Seit Crust (B11) — Aquetic Invertebrat — Hydrogen Sutifice — Oxidized Rhizoeph — Presence or Reduc — Sturited or Stresse gery (B7) — Other (Explain in R urface (B6)	ves (89) (except MLRA 8) bdor (C1) eres along Living Roots (C ed tron (C4) tion in Tilled Solls (C8) d Plants (D1) (LRR A) iemerks)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 48) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C4 Saturation Visible on Aerial Imagery (C4 Saturation Visible on Aerial (C3) Saturation Visible on Aerial (C3) FAC-Neutral Test (D5) Reised Ant Mound's (D6) (LRR A) Frost-Heave Hummocka (D7)
/DROLOG1 lefand Hydro imary Indivativ Surfece Wit High Water Saturation Saturation Drift Depos Surface So Junto Depos Surface So Junto Editor Sparsely Vield Observat unface Water I	Y Hogy Indicators: pra (ntihirmum of one r ster (A1) Table (A2) (A3) sa (B1) Deposita (B2) its (B3) r Crust (B4) its (B5) H Cracks (B6) Visible on Aerial Imag agetated Concave Su lions: Present? Yes_	required, check all that apply) 	ves (89) (except MLRA 8) bis (813) Odor (C1) eres along Living Roots (C: ved Iron (C4) tion in Tilled Solis (C8) d Plants (D1) (LRR A) emarks)	Secondary Indicators (2 or more required) Water-Stated Leaves (89) (AILRA 1, 2 4A, and 48) Drainage Patterns (810) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (Ci 3) Geomorphic Position (D2) Shalow Aquitard (D3) FAC-Neutral Test (D5) Reised Ant Mounds (D6) (LRR A) Frost-Heave Hummocka (D7)
/DROLOG' Welland Hydro imary Indicati Suffices We High Welter Saturation Water Mari Saturation Water Mari Saturation Drift Depos Algel Mat o Inno Depos Surface So Innuclation Sparsely Vi Ield Observat Velace Water Table Priv	Y lings Indicators: gts (minimum of one r ster (A1) Table (A2) (A3) ts (B1) Deposite (B2) tts (B3) r Crust (B4) tts (B3) tr Crust (B4) ts (B5) th Cracks (B6) Visible on Aeriel Imag gestated Concave Su Jons: Present? Yes_	required: check all that apply) — Water-Steined Lee 1, 2, 4A, and 4I Sett Crust (B11) — Aquatic Invertebral — Hydrogen Sulide (— Oxidized Rhitcosph — Presence of Reduc — Recent fron Reduc — Stunted or Stresse gery (B7) — Other (Explain in R rrface (B6) — NoDepth (inches):No	ves (86) (except MLRA 8) bis (813) bior (C1) eres along Living Roots (C: ed Iron (C4) bion in Tilled Soils (C8) of Plants (D1) (LRR A) (emarks)	Secondary Indicators (2 or more resulted) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 48) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C6 Saturation (D2) Saturation (D3) FAC-Neutration (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocka (D7)
VDROLOG Vetland Hydro imary Indicati Sufface Wu High Water Saturation Saturation I Drift Depos Sufface So Intro Depos Sufface So Invortition Spansely Vi seld Observati urface Water I faster Table Pro tauration Pres	Y liggy Indicators: ate (minimum of one (ater (A1) Table (A2) (A3) (s (61) beposite (B2) its (B3) (r Crust (B4) its (B5) H Cracks (B6) Visitole on Aerial Imag agetsted Concave Su lions: Present? Yes_ esent? Yes_	required: check all that apply) 	ves (89) (except MLRA 8) bios (813) bior (C1) eres along Living Roots (C) ed iron (C4) tion in Tilled Soils (C8) d Flents (D1) (LRR A) iemarks) Westland H	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4.4, and 48) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C0 Saturation Visible on Aerial (D2) Shatow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mound's (D6) (LRR A) Frost-Heave Hummocka (D7) tychrology Present? Yes No
VDROLOG' Velland Hydro imary Indicati Suffices Wi High Water Saturation Saturation Mater Mark Saturation Inth Depos Sufface So Inth	Y viogy indicators: ater (n1) ratele (A2) (A3) (a (61) vecosite (B2) vecosite (B4) vecosite (B4) vecos	required: check all that apply) Water-Steined Lea 1, 2, 4A, and 4 Set Cruck (B11) Aquatic Invertebral Hydrogen Sutifice Other (B11) Recent fron Reduc Stunted or Stresse gery (B7) Other (Explain in R urface (B6) No Depth (inches): No Depth (inches): No No Depth (inches): No No Depth (inches): No Depth (inches): No Depth (inches): No No Depth (inches): No Depth (inches): No No Depth (inches): No Depth (inches): No No No No No No No N	ves (89) (except MLRA 8) bios (813) bios (813) bios (C1) erres along Living Roots (C) ed iron (C4) tion in Tilled Soils (C8) d Plants (D1) (LRR A) (emarks) Westland H revious inspections). # even	Secondary Indicators (2 or more resuited) Water-Stained Leaves (B9) (MLRA 1, 2 4.4, and 48) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shatkow Aquitard (D3) FAC-Neutral Test (D5) Reised Ant Mound's (D6) (LRR A) Frost-Heave Hummocka (D7) tydrology Present? Yes No illable:
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Sewall Wetland Consulting, Inc.

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

June 28, 2019

Schloredt Conrad Family Trust PO Box 1267 Stanwood, WA 98292

RE: Parcel #31052900202400 – Critical Area Report City of Marysville, Washington SWC Job #19-120

This report describes our observations of any jurisdictional wetlands, streams or buffers on or within 200' of (Parcel #31052900202400) located at 2124 172nd Street NE, in the City of Marysville, Washington (the "site"). The site is located in the NW ¼ of Section 29, Township 31 North, Range 5 east of the W.WM.



Above: Vicinity Map of the site.

The site is an irregular shaped 2.39 acre agricultural property used for growing hay, corn and other crops.

METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site between February and May of 2019.

The site was reviewed using methodology described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), and the *Western Mountains, Valleys and Coast region Supplement* (Version 2.0) dated June 24, 2010, as required by the US Army Corps of Engineers.



Above: 2017 aerial photograph of the site.

Given the mapped Custer soil series on part of the site, hydrology monitoring in the early growing season was deemed the only way to determine if wetland hydrology exists on this agricultural field.

Previous information from NRCS indicates that there is such a high degree of disturbance to historical hydrology of the Custer soils in the vicinity of the site that the only sure determination if the soil was hydric was to observe wetland hydrology in the early growing season over the required period of time.

The presence of wetland hydrology is the driving force behind wetland presence, without wetland hydrology, an area does not meet wetland criteria. Therefore, only areas on the site that contain all three parameters during the early growing season meet the definition of a wetland. Areas that do not have hydrology do not meet wetland criteria and are considered upland.

In order to determine what portion of the site contained wetland hydrology, an analysis of wetland hydrology was conducted throughout the site.

Site Hydrology Monitoring Methods

A total of 7 data points (soil pits & piezometers) were sampled to determine if wetland vegetation, soils and hydrology was present on the site within 12" of the soil surface.

The site was visited between February 21th and May 3 of 2019 to collect hydrology data.



Rainfall in the region was above normal for February and April, January and April and less in May, but on average, rainfall was normal between Jan and May of 2018. Normal rainfall for this period is 17.57" and in 2018 18.53" of rain fell in this period, which slightly above normal (105%).

At each of the 7 sample points the level of standing water and/or soil saturation (if any) were recorded.

OBSERVATIONS

Existing Site Documentation.

Prior to visiting the site, a review of several natural resource inventory maps was conducted. Resources reviewed included the City of Marysville Critical Areas map, National Wetland Inventory Map, the NRCS Soil Survey online mapping and Data, WADNR Fpars stream mapping and the WDFW Priority Habitats mapping website.

City of Marysville Critical Areas Map

According to the City of Marysville Critical Areas Maps, there are no wetlands or streams on the site. A wetland is mapped to the east and west of the site. However, from a previous study conducted by Sewall Wetland Consulting, Inc. of the Sather A, B&C properties to the east and south, these wetlands do not exist.



City of Marysville Critical Areas Map



Above: City of Marysville stream map.

National Wetlands Inventory (NWI)

The NWI map depicts no wetlands or streams on or near 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 Custer fine sandy loam. According to Soil Survey of Snohomish County Area, Washington (Debose and Klungland, 1983), Custer soils (soil unit #13) are poorly drained soils formed in outwash plains. According to local NRCS scientists, Custer soils have such a high degree of disturbance to historical hydrology in the vicinity of the site that the only sure determination if the soil was hydric was to observe wetland hydrology in the early growing season over the required continuous period of time.



Above: NRCS Soil map of the study area.

WADNR Fpars

The WADNR Fpars stream typing map for the site there are no streams on or near the site. The closest mapped stream is over 1,000' south of the site.



Above WDNR Fpars Stream Typing map.

WDFW Priority Habitats

According to the WDFW Priority Habitats mapping website, there are no priority habitats on or near the site. The closest mapped priority habitat is a wetland (which does not exist) depicted in the middle of a plat approximately 1,000' southeast of the site.



Above: WDFW Priority Habitats Map of the site

Field observations

Uplands

The site is a relatively flat, former agricultural property which contains a gravel driveway, single-family home and several outbuildings on the north end of the site. The remainder of the site is disturbed lands with numerous trailers/campers, old boats, cars and assorted materials scattered over the site. Soils are disturbed through most of the site with evidence of historic grading and scraping. Agricultural ditches border the east, west and south sides of the site.

Vegetation on the site is limited to patches of Himalayan blackberry and scotch broom along the perimeter of the site as well as a few scattered black cottonwoods along the southwest corner. The remainder of the site consists of landscaped/lawn area on the northern ¹/₄ of the site and the

remainder a variety of weedy species and grasses including Canadian thistle, stinging nettle, Hawthorne, creeping buttercup, cats ear, dandelion, bentgrass, orchard grass, ryegrass, and velvet grass.

Soil pits excavated throughout the site generally consist of sandy loam soils similar to the Custer profile, with an A-horizon of sandy loam with colors of 10YR 3/2 and 2/2 down to 8-10" and a B-horizon of loamy sand with a color of 10YR 3/2-3/6. As previously mentions, in some areas the A-horizon had been scraped away and the remaining soil was a sandy loam with colors of 10YR 3/2-3/6.

During all of the site visits and review of all data points, no area on the site was found to contain wetland hydrology. All soils pits were found to be dry- moist during all other site visits with some saturation at depths of -18" or deeper during one site visit on March 14.



Above: Data point locations on the site

Conclusion

No wetlands, streams or buffers exist on the site.

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 <u>esewall@sewallwc.com</u>.

Sincerely, Sewall Wetland Consulting, Inc.

Sent

Ed Sewall Senior Wetlands Ecologist PWS #212

Attached: Data Sheets Hydrology data

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City of Marysville Municipal Code

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Sewall Wetland Consulting, Inc.

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

June 28, 2019

Cassie Lee Riccardi PO Box 2590 Homer AK, 99603

RE: Parcel #31052900201200 – Critical Area Report City of Marysville, Washington SWC Job #19-109

This report describes our observations of any jurisdictional wetlands, streams or buffers on or within 200' of (Parcel #31052900201200) located at 1930 172nd Street NE, in the City of Marysville, Washington (the "site"). The site is located in the NW ¼ of Section 29, Township 31 North, Range 5 east of the W.WM.



Above: Vicinity Map of the site.

The site is an irregular shaped 4.55 acre agricultural property with a single family home and barn, as well as area used for growing hay, corn and other crops.

METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site between February and May of 2019.

The site was reviewed using methodology described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), and the *Western Mountains, Valleys and Coast region Supplement* (Version 2.0) dated June 24, 2010, as required by the US Army Corps of Engineers.



Above: 2017 aerial photograph of the site.

Given the mapped Custer soil series on part of the site, hydrology monitoring in the early growing season was deemed the only way to determine if wetland hydrology exists on this agricultural field.

Previous information from NRCS indicates that there is such a high degree of disturbance to historical hydrology of the Custer soils in the vicinity of the site that the only sure determination if the soil was hydric was to observe wetland hydrology in the early growing season over the required period of time.

The presence of wetland hydrology is the driving force behind wetland presence, without wetland hydrology, an area does not meet wetland criteria. Therefore, only areas on the site that contain all three parameters during the early growing season meet the definition of a wetland. Areas that do not have hydrology do not meet wetland criteria and are considered upland.

In order to determine what portion of the site contained wetland hydrology, an analysis of wetland hydrology was conducted throughout the site.

Site Hydrology Monitoring Methods

A total of 9 data points (soil pits & piezometers) were sampled to determine if wetland vegetation, soils and hydrology was present on the site within 12" of the soil surface.

The site was visited between February 21th and May 3 of 2019 to collect hydrology data.



Rainfall in the region was above normal for February and April, January and April and less in May, but on average, rainfall was normal between Jan and May of 2018. Normal rainfall for this period is 17.57" and in 2018 18.53" of rain fell in this period, which slightly above normal (105%).

At each of the 9 sample points a 3" diameter piezometer was to a depth of -18". At each pit observations of the level of standing water and/or soil saturation (if any) were recorded.

OBSERVATIONS

Existing Site Documentation.

Prior to visiting the site, a review of several natural resource inventory maps was conducted. Resources reviewed included the City of Marysville Critical Areas map, National Wetland Inventory Map, the NRCS Soil Survey online mapping and Data, WADNR Fpars stream mapping and the WDFW Priority Habitats mapping website.

City of Marysville Critical Areas Map

According to the City of Marysville Critical Areas Maps, there are no wetlands or streams on the site. A wetland is mapped to the south of the site. However, from a previous study conducted by Sewall Wetland Consulting, Inc. of the Sather B&C properties to the south, this wetland does not exist.



City of Marysville Critical Areas Map


Above: City of Marysville stream map.

National Wetlands Inventory (NWI)

The NWI map depicts no wetlands or streams on or near 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 Kitsap silt loam on the west, and on the eastern half, Custer fine sandy loam. According to Soil Survey of Snohomish County Area, Washington (Debose and Klungland, 1983) Kitsap silt loam is a moderately well drained soil formed in glacial lakebed deposits. Custer soils (soil unit #13) are poorly drained soils formed in outwash plains. According to local NRCS scientists, Custer soils have such a high degree of disturbance to historical hydrology in the vicinity of the site that the only sure determination if the soil was hydric was to observe wetland hydrology in the early growing season over the required continuous period of time.



Above: NRCS Soil map of the study area.

WADNR Fpars

The WADNR Fpars stream typing map for the site there are no streams on or near the site. The closest mapped stream is over 1,000' south of the site.



Above WDNR Fpars Stream Typing map.

WDFW Priority Habitats

According to the WDFW Priority Habitats mapping website, there are no priority habitats on or near the site. The closest mapped priority habitat is a wetland depicted on the NWI map over 700' west of the site.



Above: WDFW Priority Habitats Map of the site

Field observations

Uplands

The site is a relatively flat agricultural property with a slight slope to the south west. A single-family home and several agricultural outbuildings are located on the north end of the site. The remainder of the site is an agricultural field. An informal farm road passes through the site to the south. Agricultural ditches border the west and south sides of the site. The site is bordered by 172nd Street NE on the north, single family/agricultural property to the east, the Sather property to the south which is currently farmed, and a utility building and single-family structure to the west.

The site is plowed and planted with either hay or crops like corn on an annual basis. At the time of our sampling the field was planted in ryegrass (*Lolium perenne*).

Soil pits excavated throughout the site generally consist of sandy loam soils similar to the Custer profile, with an A-horizon of sandy loam with colors of 10YR 3/2 and 2/2 down to 8-10" and a B-horizon of loamy sand with a color of 10YR 3/2-3/6.

During all of the site visits and review of all data points, no area on the site was found to contain wetland hydrology with the exception of Well #6 which was saturated at -12" on one site visit on March 14th which had followed some heavy rainfall (see attached hydrology monitoring results). All soils pits were found to be dry- moist during all other site visits with some saturation at depths of -14" of deeper almost entirely on the one site visit on March 14.



Above: Data point locations on the site

Conclusion

No wetlands, streams or buffers exist on the site.

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 <u>esewall@sewallwc.com</u>.

Sincerely, Sewall Wetland Consulting, Inc.

Sent

Ed Sewall Senior Wetlands Ecologist PWS #212

Attached: Data Sheets Hydrology data

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City of Marysville Municipal Code

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US Army Corps of Engineers

Western Mountains, Valleys, and Coast -- Interim Version

WETLAND DETERMINATION DATA FORM - W	estern Mountains, Valleys, and Coast Region

Spallcart/Currer: State of y Investigator(s): Saction: Township, Range antiferm (hilbslaps, larrates, etc.): Local refe/ (concarve, none): Subregies (LRR): Local refe/ (concarve, none): Subregies (LRR): Let: Local refe/ (concarve, none): Desarr: Subregies (LRR): Let: Local refe/ (concarve, none): Desarr: Subregies (LRR): Let: Local refe/ (concarve, none): Desarr: Very (concarve, none): No (concarve, none): Desarr: Very (concarve, none): No Very (concarve, none):	Applicationer: State: State	rojacition: Placardi	Carroundy Marysville	Sampling Datas 2-21-19
Londi resel (concerve, none):	Landien (Hitsiape, Lenter, Ante):	policent/Ourner needlator(s): Ed Sewall	Section, Township, Range 529	TSIN R5E
In the second se	Ident Hame:	undform (hilbiops, lerraige, etc.):Let:Let:	, Local relet (concerve, convex, none);	
	Are Vegelation, Saf, or Hydrology neturally problematic? (If needed, explain any answers in Remarks.) BUMMARY OF FINDINGS – Attach site map showing sempling point locations, transects, important features, etc.	oli Map Unit Harne: re climatic / hydrologic conditions on the aits hydroll for this time of ye re Vegeation Soli or Hydrology significantly	ser? Yes No (If no, explain i y disturbed? Are "Normal Circumstance	etication: in Remerks.) w"present? Yss No

VEGETATION - Use scientific names of plants.

. .

Remeks.

[ALACTER SECTION CONTRACT	- Number of Dominant Species
		That Are OBL, FACW, or FAG:
2		Total Number of Dominant
\$. 		. Species Across All Strate: (B)
h	- Total Cover	Percent of Dominant Species. That Are OBL, FACW, or FAC: (AIB)
t.		Prevalence Index worksheet:
2		Total % Cover of Multiply by:
4	•	OBL species x1=
- <u> </u>		FACW species x2 =
A		FAC species x 3 #
	· Total Cover	FACU species X 4 =
terb Strature (Plot size:)	the FAL	UPL species x 5 =
- tolim prime	loc nu	Column Totals; (A) (B)
3		Prevalence Index = B/A =
4		Hydrophytia Vegetation Indicators:
5		Cominance Test is >50%
		Prevalence Index is \$3.0 ¹
		Morphological Adaptations' (Provide supporting data in Remarks or on a separate shret)
		Weiland Non-Vescular Plants'
,		Problematic Hydrophytic Vegetation ¹ (Explain)
11.		¹ Indicators of hydric soil and wetland hydrology must
	» Total Cover	
Nooch Vine Similum (Plot size:)		
ł		- Hydrophytic
٤		Present? Yes No
% Bars Ground in Herb Stratum	= Total Cover	
Remaks.		

MARKING TRACKREASES (Tradecision to size cal	th seaded to document the indicator or coolina	the absence of indicators.)
Depth Matrix	Redux Fastures	
(inches) Color (moint) %	Color (moint) % Type Loc	Tasture Remerka
10 10/2/2		
11. 102 1/20 2/20	AR GEL	Lines Bert
10 10 11-319		
	Addition and a second s	
Type: C-Concentration D-Desilation RM	-Reduced Matrix, CS=Covered or Costed Sand Gr	pine. ⁹ Location: PL+Pore Lining, M-Makris.
Hydrie Solt Indicators: (Applicable to al	LIRRs, unless otherwise noted.)	Indiastors for Problemetic Hydric Solis":
Lintered (A4)	Sundy Radew (SS)	2 cm Muck (A10)
	Stringert Linder (Sill)	Red Percel Meterial (TF2)
There the state	A CONTRACT AND A CONTRACT (CONTRACT AND A CONTRACT	Other (Franks in Research)
Levinese Dulide (**)	And a contract of a contract of the second s	
new rightingen dumme (199) Combined Robust Pauls Studiese (A44)	Candidad Makie (FS)	
This Date Surface (\$17)	Barine Date Reviews (ER)	⁴ Indicators of hydronixelic unsetation and
TING UNIT OWNER (AT 4)	Contraction Courts Reading (CD)	mailand heriology much in maand
annay Mucky Mirigran (31)	Baday Department (CR)	reasons distanced or read-location
Genoy Geryea maerx (04)	neura copressions (ro)	
reserve Layer (a present):		
Туре:		
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YDROLOGY	No m	d'adre
YDROLOGY Welland Hydrology Indiantics:	no m	d'advr
YDROLOGY Webend Hydrology Indiantars: Pitnery indianters (ministur of sternsvirt	NU m	Secondary Insignion (2 or rose (rowind)
YDROLOGY Wolland Hydrology Indiantara: Primery Indiantara (ministrum of one recula - Surface Water (A1)	(c) check ell litet appir) Weise-Steined Leaves (89) (axcept MLR	Secondary Instantors (2 or more resulted) Mater Stained Leaves (89) (MLPA 1, 2,
YDROLOGY WeBand Hydrology Indiantare: Prinney Indiantare: (minister) of one reculat High Water Table (A1) High Water Table (A2)	N/2 /// Id: check #8.Host apply) View-Steined Leaves (89) (except MLR 1, 2, 4A, and 48)	Secondary Insignions (2 or more, resulted)
YDROLOGY Notensi hydrology Indiantars: Subary Indianters (minister of stat receive Subary Water (A1) High Water Table (A2) Saturation (A3)	K: check ell list apply) 	Secondary Insignions (2 or more resulted)
YDROLOGY NeBand Nydrology Indiantora: Primery Indiantora (stale result Surface Water (A1) High Water Table (A2) Saturation (A3) Water Maria (B1)	N/J // // check.ell.ltost.anglr/) // Vister-Stelined Learnes (89) (accept MLR 1, 2, 44, and 48) Self Crust (811) Aquatic Invertigations (813)	Secondary Insignion (2 or more mession) Magnetic Stained Leaves (55) (MLPA 1, 2, 4A, and 48) Drainage Petitoris (610) Dry-Senson (Mater Table (C2)
VDROLOGY Weband Hydrology Indiantare: Primery Indiantare (ministrum of ane recular Surface Water (A1) High Water Table (A2) Seturation (A3) Water Marka (B1) Secharet Deposite (B2)	<pre>ki check sil list apphr)</pre>	Secondary Insignions, (2 or some metuland)
YDROLOGY Netensi Hydrology Indiantars: Subsc Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Saturation (A3) Drift Coccests (B3)	Ki check sil list apphy) 	Secondary Insignion (2 or rosts resulted) A
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WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

ect/Sile: CC @	~~ .	City	County: 140	MASVILLE Sampling Datas C- CI
licen/Owner:				Binte: WA Sempting Point _ DP7
estigator(s): 5d	Sewall		sion, Township, Ra	M SZA TSIN RSE
ridiom (hilbiops, terrace, etc.):			al relief (conceve.	convex, none); Stope (%);
ibregien (LRR)				_ Long: Datem:
si Man Unit Name:				MMI classification:
re climatic / hydrologic condition	s on the site typical for	this time of you?	Yes No	(If no, explain in Remerks.)
on Versetation Soli	or Hydrology	significantly dat	urbed? Are '	Normal Circumsterices' present? Yes No
re Vegetation . Soli	or Hediniapy	naturally problem	malic? ili n	edied, exclain any anguers in Remarks.)
	and a set of the set of the set			landina francis imparient indunt di
UNINART OF FINDINGS	- Attach site m	sp snowing se	withing bours	ocations, transects, important readines, en
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EGEIAIION - USU SUN	utile manimum on bu	Absolute D	uniment indicator	Deminance Test underheat
Ine Stature (Plot size:		S Cover S	becies? Status	Number of Dominant Species
i				That Are OBL. FACW, or FAC: (A)
2				Total Number of Dominant
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4				Percent of Dominant Species
Seelins/Shoub Siteburn (Piot siz	ne: 3		fotal Cover	Thet Are OBL, FACW, or FAC: (A/B)
t.	···			Prevalence index worksheet:
2.				Total % Cover of Multiply by
2				OBL species x1=
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s				FAC species x 3 *
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Hero Strater (Plot 828:		1/21	PACU	UPL species x 5 #
				Column Totale; (A) (B)
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4.				Hydrophydie Vegetation Indicators:
6.				Cominance Test is >90%
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7.				Gate in Herzieks of on a separate sheet?
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SOIL Sempling Point: Profile De in: (Describe to the depth needed to document the indicator or confirm the absence of indi-Redox Fantures Depth discher Color (m Type Loc Texture Remarks Color (moint) * 101312 lum 10 10123/4 Jong 50 10 "Type: <u>O-Concentration</u>, <u>O-Destellan</u>, RM-Reduced Metrix, CS-Covered or <u>Costed Send Grains</u>. Hydric Bolt Indicators: (Applicable to all URIs, unless otherwise soled.) ²Logation: PL=Pore Lining, M=Metric, litestors for Problematic Hydric Solit* Indiagtors for Pro ____ Sandy Redox (85) ____ 2 on Muck (A10) Historol (A1) Shipped Metrix (96) Histic Epipedon (A2) Sileck Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) ____ Other (Explain in Remarks) Loamy Glayed Mainta (F2) Decisied Matrix (F3) Depieted Salow Dark Surface (A11) -¹Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Redox Desk Surface (F6) weitland hydrology must be present, unless disturbed or problematic. Sendy Mucky Mineral (81) Depleted Dark Surface (F7) Sandy Glayeri Mairix (64) Redax Depressions (F5) Restrictive Layer (If present): TYPE: Hydric Soll Present? Yes Depth (inches): No. lamades No water HYDROLOGY Weband Hydrology India Primery indicators (minimum of one required, check all that analy) Secondary Indicators (2 or more required) Surface Water (A1) ____ Water-Stained Leaves (89) (except MLRA ____ Water-Stained Leeves (89) (MLIA 1, 2, 4A, and 4B) 1.2.4A, and 483 High Weter Table (A2) ____ Sell Crust (B11) ___ Drainage Patients (810) Seturation (A3) Dry-Season Water Table (C2) Water Marks (81) Aquatic invertebrates (813) Seturation Visible on Aerial Imagery (CB) Sedment Deposits (B2) Drift Deposits (B3) ____ Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Shallow Aquitard (D3) ____ Presence of Reduced Iron (C4) Aigel Mat or Crust (84) fron Deposits (85) Recent fron Reduction in Titled Soils (C8) ____ FAC-Necarel Test (D5) Raised Ant Mounds (D8) (LIRR A) Surface Solt Cracks (B6) Stunied or Streseed Plants (D1) (LRR A) Other (Explain in Remarks) Frost-Heave Hummodus (D7) Invaduation Visible on Aerial Imagery (B7) Sparsely Vegetated Conceve Surface (88) Field Observations: ____Depth (inches); Surface Water Present? No **M** Depth (inches): Water Table Present? Yes No Z Depity (Inches); Yes Wetland Hydrology Present? Ves No . Securation Present? (includes capillary frings) Describe Recorded Date (stream gauge, monitoring well, seriel photos, previous inspections), if evaluates Remerts: No Adicata

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To try Sal	Ciertie <u>1. constant</u> <u>PI - Porte Limite, Jac Mathrie</u> Instantions for Provisionalic Physics Solar ¹ : 2 cm Muut (197) Rad Peneral Material (172) 1) Other (Explain In Rementus)	Indexents of hydrophys wegatikan and wegatikan bydrobogy musi ba prevent, wease dokated or profematic.	Hydre tell Presents Yes to the	LA Secondery Indication (2.4. mara. multitud) 	005 (C3)	damid hydrotogy Present? Yes to	Survey
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Marys VI) Le Sanotry Date 2-2(-19 Bane WA Sanoth Port <u>DFF</u> / Sanoth MA Sanoth Port <u>DFF</u> / Sanoth Mary Port <u>S2A TJ/N E5 (5)</u> An conver, anoni, <u>3600 (8)</u> Mo (100, applie in Ramatica) Mo (100, applie in Ramatica) Mo (100, applie in Ramatica)	(10 medical, oncidin any antenero to Remarks.) drift locationse, transaccia, Insportant Itantiures, att. spect Aves Yes No.	firs Dominants Yari wohichest. Man. At man. Ar Pratimation	That Are Old. FACH, or FAC: () () Total Munther of Dominent Specien Across Al Brass: () () Present of Dominant Species () () That Are Old. FACH, or FAC: () ()	Reventioned index workshoet 134 % Corner of a 134 % Corner of a 134 % Corner of a 135 % Corner of a 135 % Corner of a 135 % Corner of a 136 % Corner of a 137 % Corner of a 138 % Corner of a 138 % Corner of a 139 % Corner of a 130 % Corner of a 130 % Corner of a 131 % Corner of a 132 % Corner of a 131 % Corner of a 132 % Corner of a 131 % Corner of a 131 % Corner of a 132 % Corner of a 132 % Corner of a 132 % Corner of a 133 % Corner of a 134 % Corner of a 135 % Corner of a 136 % Corner of a 137 % Corner of a 136 % Corner of a 137 % Corner of	Prevetence Index - BA	Medianot Non-Vascular Plans, Problematic hydrophyde: Vergetadon (Explain) Indicators of hydrosphyde: Vergetadon (Explain) Indicators of hydrosphyde: Vergetadon Medianot databeted or problematics Medianot hydrosphyde Medianot hydrosphyd Medianot hydrosphyde Me	
d.1 Cardoory. Marys VI) Le. Sanctive pairs. 2-2(-) Sectors.1 Sanction.1 Sanctive pairs. 2-3(-) Sectors.1 Sanctive pairs. 2-3(-) Sectors.2 Local naire (concare. conver, nons). Sanctive pairs. Sectors.2 Lat. Local naire (concare. conver, nons). Sanctive (sectors.2 Lat. Long. Non constitution. Sanctive (sectors.2 It at hybrid for this interver.1 Non constitution. Date: It at hybrid for this interver.2 Non constitution. Non.	x hydrolacynaturals, producends:7 (8 reactid, copiellin exp. armeets in Romants.) Addoch sile meg showing semplifing point locations, transaccia, important lastures, str. YesNoNo is the ferminist Ave. YesNoNO	le namnes of plants. Avoiden Domiuum Indicato Domiuanos Yadi workeheet. A.Cont. Bendaling Stituta. A name of homeware Annie.	This Are Old. FACH, of FAC: (N) Total Munder of Dominant (D) Species Acres Al Bran: (D)	Providence isolax workshoet: Table X. Corner of the X-corner of the X-corne of the X-corner of the X-corner of the X-corne of the X	Prevention Index - BA- Pythophysic Vegetation Indiators: Pythophysic Vegetation Indiators: Dominance Text & 20% Prevention Indiators: Prevention Indiators: Dominance Text & 20% Dominance Text & 20%	Andrewiss Manual Non-Vascular Plans ¹ Andrewiss Manual Non-Vascular Plans ¹ Problemate Manual Non-Vascular Plans ¹ Proprint No	

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WETLAND DETERMINATION DATA FORM Wee	tern Mountains, Valleys, and Coast Region

ApplicatioConter:	Project/Sile:P	-iccan	<u>di</u>	CINC	suniy: _	Marysvill	د	Sampling Data:	2-21-1	9
Landering (LERTY	toplican/Owner: rrvesligstor(s):	Ed :	Sewal	Secilo	n, Town	state:State:_S	29	Sampling Point	R5E	
Soli May Unit Name: NVP desolication: Ve climatic / bydrologic conditions on the sits typical for this time of year? Yes No (ff no, explain in Remerks.) Ve Vegetation Soli or hydrology significantly disturbed? Are "Normal Chourstances" present? Yes No Ve Vegetation Soli or hydrology significantly disturbed? Are "Normal Chourstances" present? Yes No Ve Vegetation Soli or hydrology netarally problematic? (ff needed, explain any answers in Remarks.) BLMEMARY OF FINDENGS Attach site rmsp showing sampling point locations, transacts, important features, etc. Hydraphytic Vegetation Present? Yes No In this Sampled Area Wetland Hydrology / Yes No In Wetland? Yes Menetic Yes No In Wetland?	.andlorin (hillslope, ter Subregien (LRR):	1409, 610 }:				Long:	·	36	(70):	
Vere climatic / bydrologic conditions on the ells typical for this time of year? Yea No (if no, explain in Remarks.) Vere Vegatation Soli, or Hydrology significantly disturbed? Are "Normal Circumstance" present? Yea No Vere Vegatation Soli, or Hydrology neturally problematic? (if needed, explain any answers in Remarks.) BUMMARY OF FINDINGS - Attach alter maps showing sampling point locations, transacts, important features, etc. Hydrophytic Vegetation Present? Yes No Hydrophytic Soli Present? Yes No Weithin a Weitland? Yes No Weithin a Weitland? Yes No	ioli Mep Unit Nome:					<u>/</u> N	Wi oleneilic	ation:		
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BLINBIARY OF FINDINGS - Attach alter mep showing sampling point locations, transects, important features, stc. Hydraphylic Vegetation Present? Yes	ve Vegetation	, Soli	ar Hydrology	naturally problems	ic?	(If needed, explain	any answe	ne in Remarks.)		
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VEGETATION - Use scientific names of plants.

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		That Are OBL, FACW, or FAC: (A)
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l		Bernani of Duminani Species
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		FACTW energies x2=
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·	a Total Cover	FACU species x4 =
ierb Stratum (Plot size:)		UPL medies x5=
follow promit		Column Totals: (A) (B)
<u> </u>		
J		Prevalence Index = B/A =
L		Hydrophytic Vegetation Indicators:
L		Dominance Test is >50%
		Prevelence Index is \$3.0"
		Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
		Welland Non-Vascular Plants'
, 		Problematic Hydrophysic Vegetation ¹ (Explain)
na		Industors of hydric soil and wetland hydrology must
	» Total Cover	
Mooch Vine Stratum (Plot stae:)		
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£		Present? Yes No
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VDROLOG Wedand Hydri Primcv indiati Seturation High Wale Seturation Orth Capen Agel Met Seturation Surface State Surface Water Valen Vision Pre- Vision Priot Seturation Pre- Vision Priot Seturation Pre- Vision Priot Seturation Pre- Vision Priot Describe Reco	Y plogy indiantors: are (minimum of an uter (A1) r Table (A2) (A3) tra (B1) Dupcelte (B2) tra (B1) Dupcelte (B2) tra (B2) tra (B3) or Crust (B4) tra (B3) or Crust (B4) tra (B3) tra (B	nagery (87) Gurface (86) 6 No 8 No 8 No 9 No 9 No 9 No 9 No 9 No 9 No 9 No 9 No	A sel litet angel     Vietnes-Ste     Assetio in     Hydrogen     Ovidezed F     Presence     Recens fre     Other (En     Depth (in     Depth (in     Depth (in     Swell, escial	y) Ined Leaves A, and 489 (611) vertebrates (( Suited Odor Viscopheres) of Reduced Pit Initian In Rema Chee): Chee): photos, previ	(B9) (except B13) (C1) is along Living in Tileot Book ance (D1) (LR r/ce)	Roots (C3) - s (C8) - s (C8) - s (C8) - Metiand Hydr m), if available	Inconderv Indi Water-Stat Drainage P Drainage P Statistics Shellow Ag FAC-Neter Reibed Ad Front-Hean Floot-Hean Clogy Present R	palors (2 or rop ned Leaves (51 e83) attients (510) Nylable on Aels Postbion (203) al Test (D5) Moundie (D8) ( e Hummode (D8) ( e Hummode ( 27 Yes	(Insuland) ) (IRJAN 1, 2, (C2) I Imagery (C9 LRR A) D7)	

US Army Corps of Engineers

Western Mountaine, Valleys, and Coast - Interim Varsion

UB Army Corps of Engineers

Western Mountains, Valleys, and Coast - Interior Version

WETLAND DETERMINATION DATA FORM - Western Mountains,	Valleys, and Coast Region
	•

Project/life Placardi	Caycounty Marysville samping Data 2-21-19
Applicate@ener:	State:     W/T     Sampling Point:     DP#4       Becilion, Township, Range     529     TSIN     P.55       Local refiel (concave. cenvex, none):     Stope (%):
Subregien (LRR): Let:	Long: Denomination: Denomination:
Are canada / ayonologic constants on the site hydrology eignificant Are Vegetation Soll, or Hydrology eignificant Are Vegetation Soll, or Hydrology naturally	year/ 108 No (I no. support in (Within Re.) thy debushed? Are "Normal Circumstances" present? Yes No worksmalle? (If reacted anothin must support in Remarks.)
SUMMARY OF FINDINGS - Attach site map showi	ng sempling point locations, transacts, important leatures, etc.

Hydrophytic Vegetation Present? HydricSoil Present? Welland Hydrology Present?	Yes No Yes No Yes No	is the Sampioti Area within a Wetland?	Yes	No
Remarks				

#### VEGETATION -- Use scientific names of plants.

	Absolute	Dominant Indicator	Dominance Test workeheet:
Inse Statium (Plot size:)	S. Cover.	Societa? Status	Number of Dominant Species
• ••••••••••••••••••••••••••••••••••••			That Are OBL FACW, or FAC:(A)
			Total Number of Dominant
, <u> </u>			Species Across All Skets:(B)
			Remark of Dominant Sharing
		* Total Cover	That Are OBL, FACW, or FAC: (A/B)
antica/Shrub Stratum (Piot size:)			
·			Province incex workinger:
L			Cost species
•			FACW species
·			FAC species
tank Bhartana (DMateriana)		* Total Cover	FACU apocles X 4 =
1010 STILLIN (PRO 120:)	100	FALL	UPL species 15 =
			Column Totals: (A) (S)
			Drawalanna Indan a R/A a
			Medensibudia Managadian badinganar
•			Companyor Task is within
			Alicentering in the second sec
•			date in Remarks or on a separate sheet)
			Wailand Non-Vescular Plants
,			Problematic Hydrophytic Vegetation' (Exclain)
û			Indicators of hydric soil and wetland hydroiogy must
1			be present, unless disturbed or problematic.
Manufa Manufana (Dina sina)		» Totel Cover	
ADORT A RUE OFFICIATION (1.101 \$138):			1. Martine
, <u></u>			Vegetation
			Present? Yes No
Ante Genund in Held Stration		* TOSH Cover	
		**************************************	L

Profile Description: Classrips to the de	on needed to document the indicator or confi	In the absence of indicators.)
Danit Mathema	Redby Fantures	
(inches) Color (moist)	Color (moist) % Type' Loc'	Texture Remerics
11. 10413/2		Im
		· ·····
Type: C-Concentration. D-Destetion. R	I-Redwood Metrix, CS-Covered or Costed Send (	Grains. 2. contion: PL=Pore Lining, M=Matrix.
Hydric Soll Indicators: (Applicable to a	if Little, unless oftwrafes noted.)	Indicators for Problematic Hydric Soils":
Historol (A1)	Sandy Radox (S5)	2 cm Muck (A10)
Histo Epipedon (A2)	Shipped Matrix (36)	Red Perent Melerial (TF2)
Black Histic (A3)	Loanny Mucky Minesel (F1) (except MLRA 1	1) Other (Explain in Remerks)
Hydrogen Sullide (A4)	Loanny Glayed Matrix (F2)	
Depleted Below Dark Surface (A11)	Depieted Metrix (F3)	
Thick Dark Surface (A12)	Redox Derk Surface (PS)	millionions of hydrophysic sugaration and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wednes rydrobgy must be present,
Sundy Gleyed Matrix (54)	reack Depressions (F8)	under disturned or problement.
Restrictive Layer (if present):		
Type:		
Decth (inches):		Hydric Soll Present? Yes No
Romenta:		Nordenty
		No when the
Remarks:		No whenky
Remarks: HYDROLOGY Webers Hydrology Indiantors:	nt check all list such)	No Indiantes
Remarks: HYDROLOGY Wedend Hydrology Indiantors: Primery Indianters (minimum of sma result	rei: check eik (hat ange)	Secondary indicators (2 or more movind)
Remarks: HYDROLOGY Wellesid Hydrology Indiantars: Primery Indiantars (minimum of sna requir Surface Water (A1)	ed: check ell lint atolio). 	Secondary Indicators (2 or more movined) LRA
Remarks: IVDROLOGY Vedexid Hydrology Indiaetars: Primery Indiaetars (minimum of one requir 	ed: check ell lhat angle) Water-Stained Leaves (B9) (except M 1,2,4,4, errd 48) Sch Court (24)	Secondery Indicators (2 or more movemed) URA
Remarks: HYDROLOGY Wedend Hydrology Indiantons: Primery Indiantons (minimum of one result Surisee Water (A1) High Weter Table (A2) Statustion (A3) Statustion (A3)	nci: cireck. pil. (hat anchy) Visior-Skeined Leaves (B0) (except M Selt Crust (B11) Selt Crust (B11)	Secondary Indicators (2 or more movind)      LRA
Remarks: HYDROLOGY Websit Hydrology Indiantons: Primery Indiantons (minimum of one result 	sci. check all livet anoth) Vision-Seland Leaves (89) (except M 1, 2, 4A, end 48) Sel Crus (81) Aquatic invertebrates (813)	Secondary Indicators (2 or mana maskind)      Weak-Stained Leaves (BD) (MLIVA 1, 2,      4A, and 483      Drainage Petiterns (B10)      Dry-Season Water Table (C2)
Remarks: IVDROLOGY Wellseid Hydrology Indexetures: Primery Indicators (minimum of one result 	ed: check ell lhut asch) Water-Steined Leaves (69) (except M Seit Crust (811) Seit Crust (811) Aquelic Inverterates (813) Hydrogen Sudice Odor (C1)	Becondery Indicators (2 or more movined)      Water-Stained Leaves (59) (MLPA 1, 2,     44, and 48)     Draitage Patterns (610)     Dry-Season Water Table (C2)     Seauration Visible on Aetal Imagery (C9)
Remarks: HYDROLOGY Webland Hydrology Indiantons: — Sufface Water (ntilemens of one requir — High Water Table (A2) — High Water Table (A2) — Setteration (A3) — Water Marks (B1) — Sedterato Deposite (B2) — Drift Deposite (B3)	rd: check e8 flut anole) 	Seconders Indicators (2 or more movined)      Real Stand Leaves (BD) (MLNA 1, 2,      4A, and 48)      Drainage Patterns (B10)     Dry-Senson Water Table (C2)     Securitor Visible on Antal Imagery (C9)     oots (C3) Geomorphic Position (D2)
Remarks: HYDROLOGY Weberd Hydrology Indiautors: Pomery Indiantors, (minimum of one result — Saturation (A3) — High Weiter Table (A2) — Saturation (A3) — Weiter Marks (B1) — Badment Deposits (B2) — Drit Deposits (B3) — Agei Mat or Crust (B4)	sci. check all list anoth) 	Secondary Indicators (2 or more maskind) LRA View-Stained Leaves (BO) (MLNA 1, 2, A, and 465 Drainage Patterns (B10) Dry-Sesson Water Table (C2) Genrospike Position (C2) Shuration Visible on Aerial Imagery (C9) oots (C3) Genrospike Position (C2) Shellow Aquitard (D3)
Remarks: HYDROLOGY Wellasid Hydrology Indiantons: Primery Indiantons (minimum of sna result 	ed: check eli livel asteho 	Secondary Indicators (2 or more mouthed)         LRA       Water-Stained Leaves (BD) (MLPA 1, 2, 4A, and 4B)         Draitings Petiterns (B10)       Dry-Season Water Table (C2)         Securition Visible on Antal Imagery (C9)       Geomorphic Position (O2)         oots (C3)       FAC-Neural Test (D5)
Remarks: HYDROLOGY Webend Hydrology Indiantors: Primery Indiantors, (Indiantors): High Water Table (A2) High Water Table (A2) Saturation (A3) Water Marks (B1) Badmark Dapcels (B2) Orif Daposits (B3) Agel Mart or Crust (B4) Iron Deposits (B5) Surface Stol Crusts (B6)	ed: check ell lhat anole) — Water-Steined Leaves (99) (except M 1,2,4,4, emd 48) — Seit Crust (811) — Aquitic trentformise (813) — Hydrogen Suilide Odor (C1) — Oxidated Rhitospheres along Living R — Presence of Reduced Iron (C4) — Racent fron Reduction in Tilles Gole ( — Stunied or Stressed Plants (C1) (LRR	Secondary Indicators (2 or more mouthed)      Secondary Indicators (2 or more mouthed)      URA
Remarks: HYDROLOGY Weberd Hydrology Indiantons: Ptimary Indiantons (minimum of one result — Saturation (A3) — High Weiter Table (A2) — Saturation (A3) — Water Marks (B1) — Bedment Deposits (B2) — Drit Deposits (B3) — Agel Mart or Crust (B4) — Tron Deposits (B5) — Sturface Soil Creats (B6) — Investigation Visible on Aerial Imagery (	st. check all list anoly) — Visier-Sained Leaves (89) (except M 1, 2, 44, end 48) — Sait Crust (811) — Aquatic Treertebrates (813) — Hydrogen Suitide Odor (C1) — Oxiderd Rhitcepheres storg Living R — Presence of Reduced Iron (C4) — Ratert fron Reduced Iron (C4) — Ratert fron Reduced Piants (D1) (LRR — Suited or Streesed Piants (D1) (LRR 87) — Other (Explain in Remarks)	Secondary Indicators (2 or more modified)         LRA       West-Stained Leaves (BD) (MLPA 1, 2, 4A, and 4B)         Drainage Patterns (B10)       Dry-Sesson Water Table (C2)         Gamma Comparison (C2)       Seturation Visible on Aerial Imagery (C9)         cols (C3)       Geomorphic Position (C2)         Shellow Aquitand (D3)       C3)         C3)       FAC-Modular Tesk (D5)         A)       Relised Ant Mounds (D6) (LRR A)
Remarks: IYDROLOGY Wellasid Hydrology Indiantans: Primery Indiantans (minimum of one regula Surface Water (A1) — High Water Table (A2) — Saturation (A3) — Water Marks (B1) — Badmant Deposits (B2) — Drift Deposits (B3) — Agal Mark or Crust (B4) — Iron Deposits (B5) — Surface Soli Creates (B5) — Inuncision Visible on Aerial Imagery ( — Sparsety Vegetated Concare Burlieo	ed. check ell livet analy). 	Secondary Indicators (2 or more messived)         LRA       Weter-Stained Leaves (BD) (MLPA 1, 2, 4A, and 4B)         Drainage Petterns (B10)       Dry-Sesson Water Table (C2)         Geamorphic Position (O2)       Sesuration Visible on Astal Imagery (C9)         oots (C3)       Geamorphic Position (O2)
Remarks: HYDROLOGY Webend Hydrology Indiantors: Primery Indianters, (Indiantors): High Water Table (A2) High Water Table (A2) Saturation (A3) Water Marks (B1) Sadiment Deposits (B2) Orifi Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Sol Cractics (B6) Inundation Visible on Aerial Imagery ( Sarred Observations):	sci. check. eli Mat anole). — Water-Steined Leaves (99) (except M 1, 2, 4A, emd 48) — Selt Crust (B11) — Aqualic Treventerates (B13) — Hydogen Sulfice Odor (C1) — Oxidized Rhizgephenes elong Living R — Presence of Reduced Tren (C4) — Resert fron Reduced Tren (C4) — Resert fron Reduced Plants (C1) (LRR B2) — Other (Explain in Remarks) (68)	Becondery Indicators (2 or more movined)      Water-Stained Leaves (B9) (MLPA 1, 2,     44, and 48)     Drainage Patterns (B10)     Dry-Sesson Water Table (C2)     Saturation Visible on Aertel Imagery (C9)      oots (C3) Geomorphic Position (C2)     Shellow Aquitad (C3)     C3) FAC-Neutral Tes (D6)      A) Related Ant Mounds (D8) (LRR A)     Frost-Heave Hammodra (D7)
Remarks: HYDROLOGY Weberd Hydrology Indiantons: Ptimary Indiantons (minimum of one result — Saturation (A1) — High Weiter Table (A2) — Saturation (A3) — Water Marks (B1) — Badment Deposits (B2) — Drit Deposits (B3) — Agel Mart or Crust (B4) — Iron Deposits (B5) — Surface Soll Creats (B5) — Instration Visible on Aerial Imagery ( — Sparsely Vegetated Concese Burlace Fried Geservetions: Studies Wide Present? Van	Int. check all list model). Vision-Sainad Leaves (80) (except M 1, 2, 44, end 40) Sait Crust (811) Aquatic Treertebrates (813) Hydrogen Suitide Odor (C1) Oxidend Rhitcepheres storg Living R Presence of Reduced Iron (C4) Recent fron Reduced Plants (C1) (LRR 10) (87) Other (Explain in Remarks) (86)	Secondary Indicators (2 or mare maskind)         LRA       West-Stained Leaves (B0) (MLNA 1, 2, 4A, and 485         Drainage Patterns (B10)       Dry-Sesson Water Table (C2)         Gaussian Visible on Aerial Imagery (C9)       Geomorphic Position (C2)         shuration Visible on Aerial Imagery (C9)       Geomorphic Position (C2)         Shellow Aquitard (D3)       C3)         C3)       FAC-Neutral Test (D6)         A)       Relised Ant Mounds (D8) (LRR A)         Pitosi-Heave Harmodax (D7)
Remarks: IYDROLOGY Welland Hydrology Indiantars: Primery Indiantars (minimum of one result Surface Weter (A1) — High Weter Table (A2) — Sturface (A3) — Weter Marks (B1) — Badment Deposits (B2) — Drift Deposits (B3) — Agel Her or Crust (B4) — Iron Deposits (B5) — Surface Soil Creatis (B6) — Inuncition Visible on Aerial Imagery ( Sparsey Vegetated Concare Burlico Field Observations: Surface Water Present? Yes	ed. check ell livet angle) 	Secondary Indicators (2 or more mesched)         LRA       Weter-Stained Leaves (BD) (MLPA 1, 2, 4A, and 4B)         Draitinge Petterns (B10)       Dry-Sesson Water Table (C2)         Sesuration Visible on Antal Imagery (C9)       Geomorphic Position (O2)         Status of Author (C3)       FAC-Neutral Test (D5)         A)       Relief Art Mounde (D8) (LBR A)         Prost-Heave Harmmodas (D7)
Remarks: HYDROLOGY Webend Hydrology Indiantons: Primery Indiantons (Indiantons) - Satisce Weter (A1) - High Weter Table (A2) - High Weter Table (A2) - Satisce Weter (A1) - Badment Deposite (B2) - Drit Deposite (B2) - Drit Deposite (B3) - Agel Met or Crust (B4) - Iron Deposite (B3) - Surface Sol Crusts (B6) - Inundetion Visible on Aerial Imagery ( - Sparsety Vegetated Concene Surface Field Observisions: Surface Water Present? Yes	ed: check eli Natianale) 	Becondery Indicators (2 or more modered)      IRA
Remarks: HYDROLOGY Weberd Hydrology Indiantons: Ptimary Indiantons (minimum of one result 	Bit check all list mote) - Visier-Sained Leaves (89) (except M - 1, 2, 44, erail 48) - Sait Crust (811) - Aquatic Treertebrates (813) - Hydrogen Sutide Odor (C1) - Oxidered Riticepheres storg Living R - Presence of Reduced Iron (C4) - Recent fron Reduced Plants (D1) (LRR - Sturted or Stressed Plants (D1) (LRR - Other (Explain in Remarks) (86) - No - Depth (inches): - No - Depth (inches): - No	Secondary Indicators (2 or mare maskind)         LRA       West-Stained Leaves (BD) (MLNA 1, 2, 4A, and 485         Drainage Patterns (B10)       Dry-Sesson Water Table (C2)         Ost (C3)       Gennorphic Position (C2)         Shallow Aquitard (D3)       C2)         C3)       FAC-Nextral Test (D6)         A)       Related Ant Mounds (D8) (LRR A)         Prosi-Heave Harmonics (D7)       Prosi-Heave (2 yes
Remarks: IYOROLOGY Websize Hydrology Indiantons: Primary Indiantons (minimum of one result — Suffice Water (A1) — High Water Table (A2) — Saturation (A3) — Water Marks (B1) — Badment Deposits (B2) — Drit Deposits (B3) — Agal Mart or Cruet (B4) — Iron Deposits (B5) — Sufface Boil Cracts (B5) — Irondetion Vibite on Aerial Imagery ( — Sparsely Vegetated Concene Burlace Frield Observations: Surface Water Present? Yes — Surface Water Present? Yes — Seturation Present? Yes — Seturation Present? Yes — Describe Recorded Data (stream gauge. /	<u>ed. check all list analy</u> ) <u> </u>	Minimum Secondary Indicators (2 or more mediated)         LRA
Remarks: HYDROLOGY Weldenet Hydrology Indiantons: Primery Indiantons. (minimum of one result — Surface Weter (A1) — High Weter Table (A2) — Saturation (A3) — Weter Marks (B1) — Badment Deposits (B2) — Drit Deposits (B3) — Agel Mar or Crust (B4) — Iron Deposits (B5) — Surface Soll Cracks (B6) — Iron Statte on Aerial Imagery ( — Sparsely Vegetated Concense Surface Field Observations: Surface Water Present? Yes — Concuses capillary Hinge) Deportise Recorded Date (utrears gauge, 1	<u>Bit check ell list analy</u> <u> </u>	Ar I I I I I I I I I I I I I I I I I
Remarks: IYOROLOGY Welland Hydrology Indiantars: Primery Indiantara, (minimum of one result Surface Weter (A1) I High Weter Table (A2) Saturation (A3) Weter Marks (B1) Badment Deposits (B2) Drift Deposits (B3) Agel Her of Crust (B4) Iron Deposits (B5) Surface Soll Creatis (B6) Insurfation Visible on Aerial Imagery ( Sparsey Vegetated Concere Surface Field Observations: Surface Water Present? Yes Surface Water Present? Yes Surface Soller: Yes Surface Resorted Dela (stream gauge, 7 Remarks:	ed. check ell linet analy)  Vister-Steined Leaves (B0) (except M 1, 2, 4A, and 4B) Selt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Suffice Cdor (C1) Oxidated Rhizopheres slong Living R Presence of Reduced trans (C4) Recent fron Reduced trans (C4) Recent fron Reduced Plants (C1) (LRR B7) Other (Explain in Remarks) (B6) No Depth (inches): No Depth(	Ar A And Alian And Angel
Remarks:  HYDROLOGY  Weidend Hydrology Indiantons: Primary Indiantons (minimum of one cristil	Bil: check. #K. Bint anoth) 	A P I W is sub-     Secondary Indicators (2 or more moulted)      LRA

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An anothed to documented the behavior or confirm the shorened of indicators at Restrict Similarian Lass Inter Lass Indicators at the Annual Annual Indicators at the Annu	Construct Linkers, CS-Conserved on Construction 1, Constitution, PL-Pore Linking, Michaeler, Linking Michaeler, Linking Michaeler, Linking Michaeler, Lonny Muccy Wilnesser (F1) (earnerph Michaeler, F2) (earnerph Michaeler, F2) (earnerph Michaeler, F3) (earnerph Mich	- Real Depresents (rs) I Hydric and Present Yee Ho	Ki check #i htt sector)     Becondery Indexion (2 or creat neurined)	the Chapter (carbone).
-21-19 Francisco	Inter, etc. Inter, etc. Prove. Boli bridheaton: (Applicable to at Heator (A) Heator (A) Heator (A) Heator (A) Blant Heato (A) Dependent Meric (A) That Dark Sorthon (A11) Dependent (B) Sorthon (A11) Dependent (B) Sorthon (A11)	(k) Bananti (ko) (ko) (ko) (ko) (ko) (ko) (ko) (ko)	Image: Control of the second secon	ciais) Conservations: Control Viters Present? Yes Viters Table (1998) Controller Present? Yes Controller Provided Data (center gauge. In Decicion Noorded Data (center gauge. In Rements:
Marys U.1 K. Sampto Dan 2 Sam U.1 Sampto Dan 2 Samp Prof. Sampto Prof. 2 Samp Cont. 2 Mary Cont.	(f needed, explain any annear provent	cetta Dominianta Test vootudinest M.L. Thus Are Old, FACN, of FAC, That Are Old, FACN, of FAC, Total Number of Dominant Species Percent of Dominant Species That are Old, FACN, of FAC Preventions Editor worksheet:	Total X, Const of         Matteriol Matteriol           CRL apecies         x1           FAXU species         x1           FAXU species         x3           FAXU species         x3           FAXU species         x3           FAXU species         x3           PAXU species         x3           PAXU species         x4           PAXU species         x4           PAXU species         x4           PAXU species         x5           PAXU species         x5           PANEL species         x5           PANEL species         x5           PANEL species         x6           PANEL species         x7           PANEL species         x6           PANEL species         x7 <t< td=""><td></td></t<>	
- 1 1 1 K     N		Aller Alle		otal Cover

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ojectrille: <u>Piccard</u>	<u> </u>	Chircounty: Marys	ville	_ Sampling Date: 2-2(-
vestigator(s): Ed S	iewall	Section, Township, Range:	529	TJIN R5E
ndiom (hilbiope, terrace, etc.):		Local relief (conceive, conve	x, hone);	Slope (%):
ibregien (LRR)	Let	Lon	Ø:	Dekim:
			ANMS classes	licetion:
e climatic / tydnologic conditions on the Vegetation, Soli, or (	e site typical for this time of y tydrology significantly	ser? Yes No / decurbed? Are "Norm	(If no, explain in al Circurvaturices	Remerks.)
e diagune hame: e diastic / kydnologic conditions on # e Vegatation Soll, or i e Vegatation Soll, or i UNMARY OF FINDINGS - A:	e sits typicat for this time of y Hydrology significanth Hydrology netwally pr thach site map showin	eer? Yes No y deturbed? Are "Norm obtemetic? (If needed y sampling point locat	(If no, explain in al Circumstances , explain any anai <b>ions, transec</b>	Remerica.) * present? Yes No were in Remarks.) ts, important features, etc.
a May Unix Name: e climatic / kydrologic conditions on th e Vegetation Solf, or i UNMMARY OF FINDINGS - Au Sydrosphylic Vegetation Present? Hydric Soll Present?	e eite typicat for this itme of y hydrology eignificenti tydrology netwalky pr idach eiter mep showin Yes No Yes No	ser? Yos No / debutset? Are 'Nom oblematic? (If nected g sempling point locat is the Sempled Area within a Wetland?	, (If no, explain in al Circumstences explain any ana iona, transec Yes	Remerics.) r prosent? Yes <u>No</u> were in Remarks.) ts, important features, etc. No <u>No</u>

#### VEGETATION -- Use scientific names of plants.

Tenn Brahma /Bint sizer	Absolute Domi	nant Indicator - ina? Status	Dominance Yest wo	nichest:	
1			That Are OBL, FACW	l, or FAC:	(A)
k			Totel Number of Dom	inant G	
·			Species Across Al 9	itata:	(8)
	- Tota	i Cover	Percent of Dominant That Are OBL, FACM	Species /	(A/B)
enline/Shrub Sitetum (Plot size:)					
			Preveence moex w		<b>4</b>
•					82
·				×1	
			EAC amotion		
			FACI Lanation	×ו	
erb Stratum (Plot size: )	* 108	e Cover	1151 anarius	× 5 #	
Folin print	ja	FAL	Column Totals:	(A)	
			Prevelence ind	w = B/A =	
			Hydroubydic Vegeta	Son Indicators:	
			Dominance Test	is >90%	
			Prevalence Inde	cia #3.01	
• ••••••••••••••••••••••••••••••••••••				teptations' (Provide s	upporting (heet)
·			Weitenst Non-Ve	ecular Plants ¹	
) <u></u>			Problematic Hvd	mainutic Vegetation' (	Explain)
<u>0.</u>		····	Indicators of hydric t	oil and watland hydro	abgy must
7, <u></u>			be present, unless di	sturbed or problemati	¢.
Voody Vine Stratum (Plot stat:)		Cover			
· · · · · · · · · · · · · · · · · · ·			Hydrophytic		
			Vegetation	/es No	
A Ban Ground in Harb Stratum	Total	Cover			
			1		

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western Mathema and Acane Banlan

SOIL Sampling Point: " Profile De tion: Describe to the depits needed to docume mi the indicator or confirm the absence of indic Redice Funtures linche rer (www.int) Color (m Type Loc Texture 104312 Tem 10 soly im 104314 
 Type: C-Concentration. D=Desiration. RM-Reduced Matrix, CS=Covered or Costed Send Grains.
 3_coston: PL=Pore Lining, M=Matrix, Hydric Bolt Indicators: (Applicable to all URIs, unless otherwise noted.)
 ____ 2 om Muck (A10) Historol (A1) ____ Sandy Redox (S5) ____ Shipped Matrix (S8) Histic Epipedon (A2) ...... Red Perent Material (TF2) Loanny Mucky Minemi (F1) (except MLRA 1) ____ Other (Explain in Remarks) Black High: (A3) Loamy Glayed Mains (F2) Hydrogen Sulfide (A4) Depieted Selow Dark Surface (A11) ___ Depieted Metrix (F3) Redox Derk Surface (F6) Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Depieted Dark Surface (F7) wetland hydrology must be present, Sandy Mucky Mineral (81) Sandy Gleyeri Matrix (64) Redox Depressions (F8) unions disturbed or problematic. Restrictive Layer (# present): Type: Hydric Soli Present? Yes _____ No ___ Depth (inches): marina' No idinty HYDROLOGY Wedned Hydrology Indianians Secondary indicators (2 or more required) Primery indicators (minimum of one requirest check all that again) ____ Water-Steined Leaves (89) (except MLRA Water-Stained Leaves (89) (MLRA 1, 2, _ Surface Water (A1) High Weter Table (A2) 1, 2, 4A, and 48) 4A, and 48) Drainage Patterns (B10) ...... Selt Crust (811) Saturation (A3) ____ Aqualic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Seturation Visible on Aerial Imagery (C9) Sedment Deposits (82) ..... Hydrogen Sullide Odor (C1) ____ Oxidized Rhizophenes along Living Roots (C3) ____ Geomorphic Position (D2) Drift Deposits (B3) Presence of Reduced Iron (C4) ..... Shallow Aquitard (D3) Algei Met or Cruet (84) Recent fron Reduction in Tilled Solis (CS) FAC-Neutral Test (D5) iron Deposits (85) _ Surface Soil Cracks (B6) Stunied or Streeged Plants (D1) (LRR A) ...... Raiseti Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (87) ____ Other (Explain in Remarks) Frost-Heave Hummodus (D7) Sparsely Vegetated Conceive Surface (88) Field Observations: Surface Water Present? -Depth (inche Z Depth (inches): Week Table Present? No Yee No Z Depih (Inches); Saturation Present? Wetland Hydrology Present? Yes No Yes (notuces certilery hinge) Describe Recorded Date (stream gauge, monitoring well, seriel photos, previous inspections), if evailable: Remarks: No indials

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ki Ed. Se (vra III. Bacton Toumetho Ra dogo. krezeo. eo.) Lot Loadi refe (concorne. 1 Kh henne: henne: n Sei or thydrology algelicaethy churchear? An *	ar 224 TJIN 252 ar 224 TJIN 252 Lorg Ann datashtantor. 	2/E-140/ 9/		low set
OF FINDINGS - Attach alls map showing sampling point is	cad, expent any anteres is represent ( cations, transacts, important leatures, stc.	Took of Caroonington & Device RM-1904e	and Matrix, CS-Covered or Conduct Send Oraria	Location: PL-Pore Lining, M-Matrix
egenticion Presentifo Yee No Is the deampined essentifor Yee No Is the deampined essentifor a Wardes events obey Presentifor Yee No No within a Wardes	2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Hydrow boll hudlectorer: (Application to all LUML;       Hittocol (X)       Hittocol (X) <th>, universe optimum control.) anty Paulon (26) paped Matter (26) savey districe (26) carry disped Matter (72) savey disped Matter (73) carry disped Matter (73)</th> <th>Inditations for Problematic Hydric Bollin — 2 cm bluck (A10) — Red Perent Material (TF2) — Other (Excitation in Remarkus) Materiations of Indianativity, constantion and</th>	, universe optimum control.) anty Paulon (26) paped Matter (26) savey districe (26) carry disped Matter (72) savey disped Matter (73) carry disped Matter (73)	Inditations for Problematic Hydric Bollin — 2 cm bluck (A10) — Red Perent Material (TF2) — Other (Excitation in Remarkus) Materiations of Indianativity, constantion and
XV Use scientific nemes of plants.		Bandy Mucky Minoral (81)	upleted Dark Startace (FT)	wettend hydrology must be present.
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Sewall Wetland Consulting, Inc.

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

September 7, 2021

Councellor Family Revocable Trust 2104 172nd Street NE Marysville, Washington 98711 & William Harvey PO Box 25 North Lakewood, Washington 98259

RE: Parcels #31052900200800, #31052900201900, #31052900201100 & #31052900202600 – Critical Area Report

City of Marysville, Washington SWC Job #21-158

This report describes our observations of any jurisdictional wetlands, streams or buffers on or within 200' of Parcels #31052900200800, #31052900201900, #31052900201100 & #31052900202600, located on the south side of 172nd Street NE, in the City of Marysville, Washington (the "site"). The 5.78 acre site is located in the NW ¼ of Section 29, Township 31 North, Range 5 east of the W.WM.



Above: Vicinity Map of the site.

The site is a rectangular shaped 5.78 acre group of abutting parcels which includes a single family home and agricultural outbuildings as well as mobile home on the east and several outbuildings, gardens and landscaped areas. The southern 2/3rdsof the property are pasture areas that are regularly mowed. Several old ditches pass through the site in a north to south orientation as well as one larger ditch along the south which drains to the west. These ditches have been determined to be non-jurisdictional ditches by the US Army Corps of Engineers.

### METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site between February and May of 2019 as well as the summer of 2021.

The site was reviewed using methodology described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), and the *Western Mountains, Valleys and Coast region Supplement* (Version 2.0) dated June 24, 2010, as required by the US Army Corps of Engineers.



Above: 2020 aerial photograph of the site.

Given the mapped Custer soil series on part of the site, hydrology monitoring in the early growing season was deemed the only way to determine if wetland hydrology exists on this agricultural field.

Previous information from NRCS indicates that there is such a high degree of disturbance to historical hydrology of the Custer soils in the vicinity of the site that the only sure determination if the soil was hydric was to observe wetland hydrology in the early growing season over the required period of time.

The presence of wetland hydrology is the driving force behind wetland presence, without wetland hydrology, an area does not meet wetland criteria. Therefore, only areas on the site that contain all three parameters during the early growing season meet the definition of a wetland. Areas that do not have hydrology do not meet wetland criteria and are considered upland.

In order to determine what portion of the site contained wetland hydrology, an analysis of wetland hydrology was conducted throughout the site.

### Site Hydrology Monitoring Methods

A total of 10 data points (soil pits & piezometers) were sampled to determine if wetland vegetation, soils and hydrology was present on the site within 12" of the soil surface.

The site was visited between February 21th and May 3 of 2019 to collect hydrology data.



Rainfall in the region was above normal for February and April, January and April and less in May, but on average, rainfall was normal between Jan and May of 2018. Normal rainfall for this period is 17.57" and in 2018 18.53" of rain fell in this period, which slightly above normal (105%).

At each pit observations of the level of standing water and/or soil saturation (if any) were recorded.

#### **OBSERVATIONS**

#### Existing Site Documentation.

Prior to visiting the site, a review of several natural resource inventory maps was conducted. Resources reviewed included the City of Marysville Critical Areas map, National Wetland Inventory Map, the NRCS Soil Survey online mapping and Data, WADNR Fpars stream mapping and the WDFW Priority Habitats mapping website.

### City of Marysville Critical Areas Map

According to the City of Marysville Critical Areas Maps, there are no wetlands or streams on the site. A wetland is mapped to the south of the site. However, from a previous study conducted by Sewall Wetland Consulting, Inc. of the Sather B&C properties to the south, this wetland does not exist.



City of Marysville Critical Areas Map



Above: City of Marysville stream map.

# National Wetlands Inventory (NWI)

The NWI map depicts no wetlands or streams on or near 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 Custer fine sandy loam. According to Soil Survey of Snohomish County Area, Washington (Debose and Klungland, 1983), Custer soils (soil unit #13) are poorly drained soils formed in outwash plains. According to local NRCS scientists, Custer soils have such a high degree of disturbance to historical hydrology in the vicinity of the site that the only sure determination if the soil was hydric was to observe wetland hydrology in the early growing season over the required continuous period of time.



Above: NRCS Soil map of the study area.

# WADNR Fpars

The WADNR Fpars stream typing map for the site there are no streams on or near the site. The closest mapped stream is over 1,000' south of the site.



Above WDNR Fpars Stream Typing map.

# **WDFW** Priority Habitats

According to the WDFW Priority Habitats mapping website, there are no priority habitats on or near the site. The closest mapped priority habitat is a wetland depicted on the NWI map over 700' west of the site.



Above: WDFW Priority Habitats Map of the site

# Sewall Wetland Consulting Studies of surrounding parcels.

All of the parcels which surround the site have been reviewed, and studied for the presence of wetlands and streams by Sewall Wetland Consulting in the last few years. This includes the Riccardi site to the west (SWC, Inc. Study dated June 28, 2019), The Schloredt property to the east (SWC, Inc. Study also dated June 28, 2019), and the Sather B&C property to the south (SWC, Inc. Study dated July 9, 2018). None of these properties were found to have any wetlands streams or buffers on or near the site.

### **Field observations**

#### Uplands

The site is a relatively flat agricultural property with a slight slope to the south. A single-family home, mobile home and several agricultural

outbuildings are located on the north end of the site. The remainder of the site is an agricultural field to include areas of abandoned cars, sheds and debris. There are two shallow north-south ditches passing through them. Several cottonwoods and douglas firs are located along the ditches.

The site is a mowed field and is vegetate with a mix of quackgrass, dandelion, white clover and cat's ear.

Soil pits excavated throughout the site generally consist of sandy loam soils similar to the Custer profile, comprised of a dry, sandy loam with colors of 7.5YR 2.5/3-10YR 3/3. No hydric indicators were noted on the site.

During all of the site visits and review of all data points, no area on the site was found to contain wetland hydrology or any soil saturation. All soils pits were found to be dry- moist during all site visits.



Above: Data point locations on the site

#### Conclusion

No wetlands, streams or buffers exist on the site.

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 <u>esewall@sewallwc.com</u>.

Sincerely, Sewall Wetland Consulting, Inc.

# Sent

Ed Sewall Senior Wetlands Ecologist PWS #212

Attached: Data Sheets Hydrology data

#### REFERENCES

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City of Marysville Municipal Code

Sewall Wetland Consulting, Inc. *Riccardi Parcel* #31052900201200 *Critical Areas Study*, dated 6-28-19

Sewall Wetland Consulting, Inc. *Schloredt Parcel* #31052900202400 *Critical Areas Study*, dated 6-28-19

Sewall Wetland Consulting, Inc. Sather B & C Parcels #310529002001300 & 1401 Critical Areas Study, dated 7-9-18

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tion, <u>Depletion</u> , <u>FM=</u> rs: (Applicable to all L (A2) e (A4) Dark Surface (A11) acce (A12) ineral (S1) tetrix (S4) f present):	Reduced Matrix. (S=Covered or Coated Sand Gr RRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	"Location: PL=Pore Lining, M=Matrix."         Indicators for Problematic Hydric Solis":        2 cm Muck (A10)        Red Parent Material (TF2)        Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Hydric Soil Present? YesNo
(A2) (A2) (A2) (A2) (A3) (A4) (A4) (A4) (A4) (A4) (A4) (A4) (A4	Krst, intress otherwise noted.)         Sandy Redox (S5)         Stripped Matrix (S6)         Loamy Diveloped Matrix (F2)         Depleted Matrix (F3)         Redox Dark Surface (F6)         Depleted Dark Surface (F7)         Redox Depressions (F8)	Indicators for Proceentact Hydric Solis :         2 cm Muck (A10)         Red Parent Material (TF2)         Other (Explain in Remarks) ³ Indicators of hydrophylic vegetation and         wetland hydrophylic vegetation         wetland hydrophylic vegetation         Hydric Soil Present? Yes No          MMM
(A2) ) Dark Surface (A1) ace (A12) ineral (S1) terrx (S4) F present):	Sandy Hedox (55) Stripped Matrix (56) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present? Yes No  Md
(A2) e (A4) Dark Surface (A11) Dark Surface (A11) ineral (S1) fathx (S4) / present):	Learny Mucky Mineral (F1) (except MLRA 1) Loarny Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Ked Parent Material (1P2) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present? Yes No  MMM
e (A4) Dark Surface (A11) ace (A12) ineral (S1) leatix (S4) present):	Loamy Global Matrix (F2) Loamy Global Matrix (F3) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Uner (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No
Dark Surface (A11) cae (A12) ineral (S1) leatrx (S4) f present):	Depleted Matrix (F3)     Depleted Matrix (F3)     Redox Dark Surface (F6)     Depleted Dark Surface (F7)     Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No
ace (A12) inerel (S1) tetrx (S4) present):	Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes <u>No</u>
ineral (51) latix (54) / present):	Depleted Dark Surface (F7) Redox Depressions (F8)	wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes <u>No</u>
latrix (S4)	Redox Depressions (F8)	unless disturbed or problematic. Hydric Soil Present? Yes <u>No</u>
f present):	- No india	Hydric Soil Present? Yes No
	- No india	Hydric Soil Present? Yes No No
	No india	Hydric Soil Present? Yes No
	No india	-hys
Indicators:		
ninimum of one required	check all that apply)	Secondary indicators (2 or more required)
A1)	Water Stained Leaves (80) (evcent MI	PA Water Stained Lawrer (89) (Mi Pa 1 2
n (42)	1 2 4A and 4B)	A and 42
e (ra)	Salt Cruet (B11)	Droinage Patterns (810)
ŧ\	Aquatic invertebrates (813)	Dou Season Water Table (C2)
") Han (1991	Hudenen Sullide Oder (C1)	Caturation Visible on Assist Impreny (CO)
MS (DZ)	Hydrogen Sunde Odor (C1)	Saturation visible on Aerial Imagery (C9)
et (BA)	Churzed Ruszuspheres along Living Roc	Shellow Aguitard (D2)
5)	Presence or reduced iron (U4) Becent iron Reduction in Tilled Salls (C4	CAC Marked Test (D5)
oj oka (DE)	Children and Press Press Control Contr	
nuna (CIC) la an Anniai Innian	Signieg of Stressed Plants (D1) (LKR A	Alised Ant Mounds (DO) (LRK A)
e on Aenai Imagery (B/	) Outer (cxpain in Kemarks)	rost-neave nummocks (D/)
neo concave sunace (B	(0)	
nt? Yes N	lo Depth (inches):	
? YesN	Io Depth (inches):	
Yes N	lo Depth (inches): Weti	and Hydrology Present? Yes No
nge) Data (stream gauge, mor	nitoring well, aerial photos, previous inspections).	it available:
	·	
	1	1
	No indra	AL
	100 100.10	
	\1) e (A2) i) its (B2) 3) st (B4) 5) cks (B6) ie on Aerial Imagery (B7 ied Concave Surface (B concave Surface (B concave Surface (B concave Surface (B concave Surface (B concave Surface (B concave Surface (B) concave (B	M1)

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•

WETLAND DETERMINATION DATA F	ORM – Western Mountains, Valleys, ar	id Coast Region
Projecuste: Councilli-/Have	2 citycounty Marysville	Sampling Date: 2-21-19
Applicen#Owner:	State UA	Sampling Point DP#2
Investigator(s): Ed Sewall	Section, Township, Range: NW / 3	SETTIRSE
Landform (hillslope, terrace, stc.):	Local relief (concave, convex, none):	Stope (%):
Subregion (LRR): i.at:	Long:	Datum:
Soil Map Unit Name: Custon	NWI classif	ication:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes No (If no, explain in	Remarks.)
Are Vegetation, Soit, or Hydrology significa	inby disturbed? Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	ing sampling point locations, transect	s, important features, etc.

A REAL PROPERTY OF A REAL PROPER	Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes         No           Yes         No           Yes         No	is the Sampled Area within a Wetland?	Yes	No
	Remarks: Mcived	File Ich			

#### VEGETATION -- Use scientific names of plants.

	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Statum (Plot size:)	% Cover	Species? Status	Number of Dominant Species
			I That Are UBL, FACW, of FAC: (A)
2			Total Number of Dominant /
3.			Species Across All Strata: (B)
4.			Percent of Domigant Spacing
<b>.</b>		, ≈ Total Cover	That Are OBL, FACW, or FAC: / (A/B)
SaplingShrub Stratum (Plot size:)			
1.			Prevalence index worksheet:
2			Total % Cover of: Multiply by:
3			OBL species x 1 =
4			FACW species x 2 =
5			FAC species x3 =
		* Total Cover	FACU species x 4 =
Herb Stratum (Plot size)		· · · · · · · · · · · · · · · · · · ·	UPL species x 5 =
1. Auguston rems	90	F4 (	Columna Totale (A) (B)
2 Total xhan a Friend	10	MI	
3			Prevalence Index = B/A =
4.			Hydrophytic Vegetation Indicators:
5.			Dominance Test is >50%
6			Prevalence Index is \$3.01
7			Morphological Adaptations' (Provide supporting
s			data in Remarks or on a separate sheet)
A.			Welland Non-Vescular Plants
8			Problematic Hydrophytic Vegetation ¹ (Explain)
10			Indicators of hydric soil and wetland hydrology must
11.			be present, unless disturbed or problematic.
Woody Vine Stratum (Distaire: )		≈ Total Cover	/
4			thurtmanhustia
1.			Versitation
£			Present? Yes No
% Bara Ground in Hach Stratum		* Total Cover	
Denset:			1

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1	SOIL Profile Desc	ription: (Describe to the de	Wh needed to document the indicator or confir	Sampling Point:
	Depth (inches)	Matrix Color (moist) % 10143/4	Redox Features           Color (moist)         %         Type         Loc'	Jarkan Ramarka

	-	
ype: C=Concentration, D=Depletion, R	M=Reduced Matrix, CS=Covered or Costed Send Gr	ains. Location: PL=Pore Lining, M=Metrix.
yone soil moreators: (Applicable to a	ui LXRS, uniess otherwise noted.)	Indicators for Problematic Hydric Solls":
Prezosol (A1) Mintin Extenden (A2)	Sandy Redox (S5)	2 cm Muck (A10)
Black Matio (43)	t comu Music Moerel (C1) (arcost MI DA d)	Cither (Series - Research)
Hydronen Sulfide (A4)	) namy Gleved Matrix (F2)	Ouver (Expany) in regimerica)
Depleted Below Dark Surface (A11)	Depleted Mairix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
estrictive Layer (if present):		[
Туре:		
Deptin (inches):		Hydric Soli Present? Yes No
		r 23
DROLOGY		
DROLOGY ettand Hydrology Indicators: mary indicators (minumum of one requi	red: check all that spots/	Seconderv Indicators (2 or more required)
DROLOGY etland Hydrology Indicators: imary indicators (minumum of one requi	red: oheck all that sooly) Water-Steined Leaves (B9) (except MLR	Secondery indicators (2 or more required) Water Stained Leaves (69) (MLRA 1, 2
/DROLOGY witand Hydrology Indicators: imary indicators (minumum of one requi Surface Water (A1) High Water Table (A2)	red: check all that apoly) 	Secondery Indicators (2 or more required) 
DROLOGY Indicators: Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3)	red: check all that spoly) Water-Steined Leaves (89) (except MLR 1, 2, 4A, and 48) Sat Crust (81)	Seconderv Indicators (2 or more required) A Water Stained Leaves (89) (MLRA 1, 2 4A, and 48) Drainage Patterns (810)
/DROLOGY Indicators: Imacy indicators (minumum of one requi Surface Water (A1) - High Water Table (A2) - Saturation (A3) - Water Marks (B1)	red: check all that apply 	Secondery Indicators (2 or more required) 
/DROLOGY Indicators: imary indicators: Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sodimert Deposits (B2)	red: check all that spolo 	Secondery Indicators (2 or more required) AWater-Stained Leaves (89) (MLRA 1, 2 4A, and 48) Drainage Patterns (B10) Dry-Season Water Table (C2) Sturstion Visible on Aerial Imagery (C1
DROLOGY witand Hydrology Indicators: imary Indicators (minumum of one requi Surface Water (A1) – High Water Table (A2) – Saturation (A3) – Water Marks (B1) – Sediment Deposits (B2) – Drift Deposits (B3)	red: check all that sools/ 	Seconderv insiderors (2 or more required) 
DROLOGY internet internet internet internet internet indicators (minumum of one required) Surface Water (A1) High Water Table (A2) Solution (A3) Water Marks (B1) Solution (A3) Water Marks (B1) Soliment Deposits (B2) Drift Deposits (B3) Agei Mat or Crust (B4)	ted: check all that spoly) Water-Steined Leaves (89) (except MLR 1, 2, 4A, and 4B) Sait Crust (811) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Rool Presence of Reduced from (C4)	Seconderv Indicators (2 or more required) AWater-Stained Leaves (89) (MLRA 1, 2 4A, and 48) Dreinage Patterns (810) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C5 is (C3)Geomorphic Position (D2) Shafkow Aquiterd (D3)
/DROLOGY witland Hydrology Indicators: imary Indicators (minumun of one requi _ Surface Water (A1) _ High Water Table (A2) _ Seturation (A3) _ Weter Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3) _ Algel Met or Crust (B4) _ Iron Deposite (B5)	red: check all that sooly) 	Seconderv Indicators (2 or more required)     A
/DROLOGY ettand Hydrology Indicators: imary indicators (minumum of one requi Surface Water (A1) - High Water Table (A2) - Saturation (A3) - Water Marks (B1) - Sediment Deposits (B2) - Drit Deposits (B3) - Alge Met or Crust (B4) - Iron Deposits (B5) - Surface Soil Cracks (B5)	red: check, ell that soply) — Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B) — Salt Crust (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulide Odor (C1) — Oxidized Rhizospheres along Living Rool — Presence of Reduced iron (C4) — Recent fron Reduction in Tilled Solia (C6) — Stunted or Stressed Pienie (C1) (LRR A)	Seconderv Indicators (2 or more required)     Water-Stained Leaves (89) (MLRA 1, 2     4A, and 48)    Drainage Patterns (B10)    Dry-Seeson Water Table (C2)    Sturation Visible on Aerial Imagery (C2    Sturation Visible on Aerial Imagery (C2)    Stafkow Aquitard (D3)    FAC-Neutral Test (D5)    Raited Ant Mounds (D6) (LRR A)
DROLOGY witand Hydrology Indicators: imary Indicators (minumum of one requi Sufface Water (A1) High Water Table (A2) Solution (A3) Water Marks (B1) Soliment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Sufface Soil Cracks (B6) Inundation Visible on Aerial Imagery (	red: check all that sooly) — Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B) — Sat Crust (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulfde Odor (C1) — Ordized Rhizospheres along Living Rool — Presence of Reduced Iron (C4) — Recent Iron Reduction in Tilled Soils (C8) — Stunted or Stressed Planh (O1) (LRR A) (67) — Other (Explain in Remarks)	Seconderv Indicators (2 or more required)     Water-Stained Leaves (69) (NLRA 1, 2     4A, and 48)     Drainage Patterns (610)     Dry-Seeson Water Table (C2)     Saturation Visible on Aerial Imagery (C1     Geomorphic Position (02)     Shalkow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D5) (LRR A)     Frost-Hearmocks (D7)
DROLOGY     idland Hydrology Indicators:     imary indicators (mixmum of one requi     Surface Water (A1)     High Water Table (A2)     Seturation (A3)     Weter Marks (B1)     Seduration (A3)     Dritt Deposits (B2)     Dritt Deposits (B3)     Agel Mat or Crust (B4)     Iron Deposits (B5)     Surface Soil Cracks (B6)     Inundation Visible on Aerial Imagery (     Sparsely Vegetated Concave Surface	ted. check all that sociary  Water-Stained Leaves (89) (except MLR  1, 2, 4A, and 48)  Sait Crust (811)  Aquatic Invertebrates (813)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Rool  Presence of Reduced from (C4)  Recent from Reduction in Tilled Soils (C6)  Stunted or Stressed Piente (C1) (LRR A)  (67)  Other (Explain in Remarks)	Seconderv Indicators (2 or more required) A
/DRQLOGY witland Hydrology Indicators: imary Indicators (minumun of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Weter Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Aigal Mat or Crust (B4) Iron Deposite (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegolated Concave Surface Wid Observations:	Ted: check all that sooly) — Water-Stained Leaves (89) (axcept MLR 1, 2, 4A, and 48) — Satt Crust (811) — Aquatic Invertebrates (813) — Hydrogen Sulfide Odor (C1) — Oxidized Rebuced Iron (C4) — Recent fron Reduction in Tiliad Solis (C6) — Stunted or Stressed Plania (01) (LRR A) (87) — Other (Explain in Remarks) a (88)	Secondery Indicators (2 or more required) A
DROLOGY witand Hydrology Indicators: imary Indicators (minumum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposite (B3) Agai Mat or Crusk (B4) Iron Deposite (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery I Sparsely Vegetated Concave Surface eld Observations: Witace Water Present? Yes	ted: check all that sools)  Water-Stained Leaves (B9) (except MLR  1, 2, 4A, and 4B) Salt Crust (B11) Aquetic Invertebrates (B13) Hydrogen Sulfde Odor (C1) Ordized Rhizospheres elong Living Rool Presence of Reduced fron (C4) Recent fron Reduction in Tilled Soils (C6) Sulf of Stressed Plank (C1) (LRR A) (B7) Other (Explain in Remarks) (B8) No Depth (inches):	Secondery Indicators (2 or more required) 
/DROLOGY ietland Hydrology Indicators: imary Indicators (minumun of one requi Surface Water (A1) High Water Table (A2) Soturation (A3) Water Marks (B1) Sotiment Deposits (B3) Dritt Deposits (B3) Agai Mait or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B5) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface ietd Observations: unface Water Present? Yes	ted: check all that sooly)  Water-Steined Leaves (B9) (except MLR 1, 2, 4A, and 4B) Satt Crust (B11)  Aquetic Invertebrates (B13)  Hydrogen Sutide Odor (C1) Oridized Rhizospheres along Living Rool Presence of Reduced fron (C4) Recent fron Reduction in Tilled Soils (C6) Sunted or Stressed Ptente (C1) (LRR A) (B7) Other (Explain in Remarks) (B8) No Depth (inches): No Depth (inches): No Depth (inches):	Seconderv Indicators (2 or more required) AWater-Stained Leaves (89) (MLRA 1, 2 4A, and 48) Drainage Patterns (810) Dry-Seeson Water Table (C2) Sturation Visible on Aerial Imagery (C5 (C3)Sturation Visible on Aerial Imagery (C5 Statkow Aquitard (C3) Statkow Aquitard (C3) Statkow Aquitard (C3) Statkow Aquitard (C5) Raised Ant Mounds (C6) (LRR A) Frost-Heave Hummocks (D7)
IDROLOGY     Identified the second seco	Test: check all that sools)  Water-Stained Leaves (B9) (except MLR  1, 2, 4A, and 4B)  Satt Crust (B1)  Aquetic Invertebrates (B3)  Hydrogen Sulfde Odor (C1)  Ordized Rhizospheres along Living Rool  Presence of Reduced iron (C4)  Recent iron Reduction in Tilled Soils (C6)  Sunds of Stressed Plank (O1) (LRR A) (B7)  Other (Explain in Remarks)  (B8)  No Depth (inches):  No Depth (inches):  Wetta	Seconderv Insidentina (2 or more required)     A
IDROLOGY     Ideand Hydrology Indicators:     trimacy Indicators (minumum of one requi     Surface Water (A1)     High Water Table (A2)     Sofuration (A3)     Weler Marks (B1)     Sofuration (A3)     Weler Marks (B1)     Drift Deposits (B3)     Aigel Mat or Crust (B4)     Iron Deposits (B3)     Surface Soft Cracks (B6)     Inundation Visible on Aerial Imagery (     Sparsely Vegetated Concave Surface     Ied Observations:     Wrater Table Present? Yes     surface Mater Present? Yes     surface Softer Present? Yes     surface Recorded Data (stream gauge, i	Test: check all that sools)  Water-Stained Leaves (B9) (except MLR  Sat Crust (B1)  Aquatic Invertebrates (B13)  Hydrogen Sulfde Odor (C1)  Oxidized Ritzospheres along Living Rool  Presence of Reduced from (C4)  Recent from Reduction in Tilled Soils (C6)  Sunted or Stressed Pisnik (O1) (LRR A) (B7)  Other (Explain in Remarks)  (B8)  No Depth (inches): No Depth (inches): Vertia  moniformg well, aerial photos, previous inspections), i	Seconderv Indicators (2 or more resuited)     Water-Stained Leaves (80) (MLRA 1, 2,     4A, and 48)     Drainage Patterns (810)     Dry-Seeson Water Table (C2)     Saturation Visible on Aerial Imagery (C9     Seconcrptic Position (D2)     Shalkow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D5) (LRR A)     Frost-Heave Hummocks (D7)
//DROLOGY     //DROLOGY     //distance // indicators:     //indix/indicators informum of one requi	Ted: check all that apoly)  Water-Steined Leaves (B9) (except MLR  1, 2, 4A, and 4B)  Sait Crust (B11)  Aquetic Invertebrates (B13)  Hydrogen Sulfde Odor (C1)  Oxidized Rhizospheres along Living Rool  Presence of Reduced fron (C4)  Recent fron Reduction in Tilled Solis (C6)  Suited or Stressed Plank (C1) (LRR A) (B7)  Other (Explain in Remarks) (B3)  No Depth (inches):  No Depth (inches):  Wetta moniformg well, aerial photos, previous inspections), it	Secondery Indicators (2 or more required)  A
(DROLOGY     ietiand Hydrology Indicators: trimacy Indicators (minumum of one requi 	Test. check all that sools)  Water-Stained Leaves (B9) (except MLR  1, 2, 4A, and 4B) Satt Crust (B11) Aquetic Invertebrates (B13) Hydrogen Sulfde Odor (C1) Oddized Rhizospheres elong Living Rool Presence of Reduced fron (C4) Recent fron Reduction in Tilled Soils (C6) Sunted or Stressed Plank (O1) (LRR A) (B7) Other (Explain in Remarks) (B8) No Depth (inches): No Depth (	Seconderv Indicators (2 or more resulted)     Water Stained Leaves (80) (NLRA 1, 2,     4A, and 48)     Drainage Patterns (810)     Dry-Seeson Water Table (C2)     Saturation Visible on Aerial Imagery (C9     Seconorphic Position (D2)     Shalkow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D5) (LRR A)     Frost-Heave Hummocks (D7)

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ect/Site:		City	County.	143V1112 50	mpting Date:1
plicant/Owner:				state: Luf Sa	mpting Point: DPF
vestigator(s): Za	Sewall	Sect	ion, Township, Ra	nge: NW 44	199 SZI TJ
indform (hilislope, terrace, etc.):		Loc	al relief (concave,	convex, none):	Slope (%):
bregion (LRR):		Lat		Long:	Detum:
all Map Unit Name:C	USTIN			NWI classificatio	n:
e climatic / hydrologic conditions on	the site typical for this t	time of year?	Yes No_	(If no, explain in Rema	irka,)
e Vegetation, Soil, o	r Hydrologysig	nificantly distu	rbed? Are	"Normal Gircumstances" pres	ant? Yes No
re Vegetation, Soil, o	r Hydrology na	turally problem	valic? (If ne	eded explain any answers in	Remarks.)
UMMARY OF FINDINGS - /	Attach site map si	howing sa	nnling point l	ocations, transacts, in	nortant features, etc.
			T Point		portant rounited, etc.
Hydrophytic Vegetation Present?	Yes No.		is the Sampled	Area	
Hydric Soit Present?	Yes No		within a Wetlan	nd? Yes	No
Nelland Hydrology Present?	Yes No		<u> </u>		
MONCO	File let				
	in some of slope			a an	
OL MININ - Day sciences	C names of plants	Abeniula Do	minent Indicator	Dominance Test workshe	at-
Tree Statum (Plot size:	<u> </u>	% Cover So	acies? Status	Number of Dominant Spaci	ot.
				That Are OBL, FACW, or F	AC: (A)
				Total Number of Dominant	,
)				Species Across All Strata:	(8)
·				Percent of Dominant Specie	<b>n</b>
anlinn Shoth Stratum (Diot size-		= 7	otal Cover	That Are OBL, FACW. or Fi	AC: (A/B)
L.	,			Prevalence Index workshi	Det:
2				Total % Cover of:	Multiply by:
)				OBI, species	_ x1=
l				FACVY species	_ x2=
L		-		FAC species	x3=
		= T	otal Cover	FACU species	
terb Stretum (Plot size		85	FA	UPI, species	_ ×5=
Triffic	- yw		Ea.	Column Totals:	_ (A) (B)
	pap	<b></b>		Prevalence index = 9	
·				Hydrophytic Veteration In	dicators:
**				Dorpinance Test is >50	%
				Prevalence Index is \$3	o'
				Morphological Adaptati	ons' (Provide supporting
				data in Remarks or	on a separate sheet)
				wellend Non-Vescular	Plants
				erconsmatic Hydrophyli	c vegetason (Explain)
0				be present, unless disturbed	d or problematic.
i0					
10	······	= To	tal Cover	1	/ /
10	······································	= To	tal Cover	thetrophytic	
10 11 <u>Moody Yine Stratum</u> (Plot size: 1		= To	tal Cover	Hydrophytic Vegetation	/
0	······································	= To	tal Cover	Hydrophytic Vegetation Present? Yes	No

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features (inches Color (moist) Color (moist) % Type Loc' Texture Remarks 7.571 7.5 3 5-12 620 14 ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Send Grains Location: PL=Pore Lining, M=Mairie Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solis¹: Histosol (A1) ____ Sandy Redox (S5) 2 cm Muck (A10) ____ Stripped Matrix (S6) ___ Red Parent Material (TF2) Histic Epipedon (A2) ____ Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) ____ Other (Explain in Remarks) ----Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) ...... Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. lestrictive Layer (if present): Type: Depth (inches): Hydric Soll Present? Yes No_ Remarks: No . mars HYDROLOGY Wetland Hydrology Indicators: Primary Indicators iminimum of one required; oheck all that apply) Secondery Indicators (2 or more required) Surface Water (A1) ____ Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (89) (MLRA 1, 2, 1, 2, 4A, and 4B) 4A, and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) ____ Water Marks (B1) Aquatic Invertebrates (813) ____ Dry-Season Water Table (C2) Sediment Deposits (82) ____ Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) ___ Algai Met or Crust (84) Presence of Reduced Iron (C4) ____ Shallow Aquitard (D3) ...... ___ FAC-Neutral Test (D5) Iron Deposits (85) Recent Iron Reduction in Tilled Soils (C8) ____ Surface Soil Cracks (86) ____ Stunted or Stressed Plants (D1) (LRR A) ..... Raised Ant Mounds (D6) (LRR A) ____ Other (Explain in Remarks) Inundation Visible on Aerial Imagery (87) ___ Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (88) Field Observations: Surface Water Present? Denth (inches) 2 Water Table Present? Depth (inches): Yes Nin Seturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No (includes capitlary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available; Remarks. No indicato

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WETLAND D	ETERMINATION I	DATA FOR	M West	ern Mou	Intains, Valleys, and Coast Region
roject/Site:	uc~//	tury	City/County.	<u>ivi</u>	WYSVILL Sampling Date: Z-ZI-1
oplican/Owner:					State: Lug-Samoling Point: DP#4
nvestigator(s); Zd	Sewal		Section To	vnshio, Ra	noe: NW 14 529 T3/R
andiorm (billsione, terrace, alc.)			Local relief	(concave.	convex soce): Sione (%):
Submition (i RR);		i at		(	Long Data
Coil Man Linit Name	Custa				Will chestion
no elimitia i busininaio enuditione	a any they give huminal far	· this time of up			//ferre austria in Descrite L
ve Unitalic / Hydrologic conduction	s on the site typical ion	THE UNIT OF YO	05 F 1005	NO	(II TO, EXpant at remarks.)
ve vegenich:		addunicanativ		A.12	Normas Cacumstances present? Personal No
de vegerenon	or Hydrology	naturany pro	ONEITHERIC /	(11.13	sedec. explain any answers in Hemarks.)
SUMMARY OF FINDINGS	- Attach site ma	ap showing	sampling	g point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present?	, yan	No /			
Hydric Soil Present?	Yes	No	is the	a Sampled	I Area
Wetland Hydrology Present?	Yes	No	WIETS	n a wene	NG NG
Remarks:	1 E1-11				
Maure	** ****				
	-			<b>16</b> 710 175 11.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1	
EGETATION - Use scien	itific names of pl	lants.			
Tree Simhun (Pict size	``	Absolute % Cover	Dominant Species?	Indicator	Dominance Test workshest:
1.		A SOLUT			Number of Dominant Species
2.			Autor (1997)		
3.					Species Across All Strate: (B)
4.					Present of Demission President
• · • • · • · • · • • • • • •			* Total Cov	et	That Are OBL, FACW, or FAC:
SabinoShub Stratum (Plot siz	<b>#</b> :)				Onvelanne lader softebasti
*					Total % Cover of Multicle by
3.			******		OBL species x1=
4					FACW species x 2 *
5.					FAC species x 3 =
			= Total Cov	<b>19</b> 7	FACU species x 4 =
Herb Stratum (Plot size	Tend	712		FAC	UPL species x 5 =
1. Hyceps of	1903			En.	Column Totals: (A) (B)
2	survey			1,44	Prevalence Index = R/A =
4					Hydrophylic Vegetation Indicators:
5.					Dominance Test is >50%
6.					Prevalence Index is \$3.0
7					Morphological Adaptations' (Provide supporting
8					oata in Remarks or on a separate sheet)
9					Vesiona Pron-Vascular Plants
10					indicators of hydrog and watered burletone must
10, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					be present, unless disturbed or problematic.
11.			= Total Cov	Br -	
11	•				
11(Plot size:	>				Hydrophytic
11(Plot size: 1	)				Hydrophytic Vegetation
11			= Total Cov	br	Hydrophytic Vegetstion Present? Yes No
Woody Yine Stratum (Plot size: 1 2 % Bare Ground in Herb Stratum	)		= Total Cov	br	Hydrophytic Vegetztion Present? Yes No

Depth	Matrix		Dad	w Festwor			/			
(inches)	Color (moist)	%	Color (maint)	% T	[voe]	Loc	Taxture		Remarks	
11.	7 = 1/2 ?	57.	7				n to	lim		
fulfarmen i	12 1	· ····································	2		******		2.6	2		
				** ****						******
			****				******			
										والإراب ويجور ايمتقل ومغمسها الشم
								******		
'Type: C=Con	centration, D=Dep	letion, RM=	Reduced Matrix, C	S=Covered or	Coaled	Sand Gra	ins, iLo	cation: PL=P	ore Lining, M*	Mairix.
Hydric Soil Inc	licators: (Applic	able to all	LRRs, unless oth	rwise noted.	}		Indicat	ons for Probl	ematic Hydrid	Soils':
Histosol (A	.1)		Sandy Redox	(55)			2¢	m Muck (A10	•	
Histic Epip	edon (A2)		Stripped Matri	(\$6)			Re	d Parent Mate	nel (TF2)	
Black Histi	c (A3)		Loamy Mucky	Mineral (F1) (	except N	ILRA 1)	0#	er (Explain in	Remarks)	
Hydrogen S	Sulfide (A4)		Loamy Gleyed	Matrix (F2)						
Depleted B	lelow Dark Surfac	e (A11)	Depleted Matr	x (F3)						
Thick Dark	Surface (A12)		Redox Dark S	inface (F6)			² Indicat	ors of hydropi	nytic vegetatic	n and
Sendy Muc	xy Minenel (S1)		Depleted Dark	Surface (F7)			wetu	and hydrology	must be pres	ent.
Sandy Gle	yed Matrix (S4)		Redax Depres	aions (F8)			unie	ss disturbed o	r problematic	
Restrictive La	yer (It present):									
Туре:										
Depth (inche	eat):						Hydric Sol	Present?	Yes	No -
Pamerke										
				N.	/	سل مر.		ts		
IYDROLOG	Y			Λ.	ر 	سل د.		tz		
IYDROLOG Wetland Hydro	Y plogy indicators:			<i>N</i> .		لم ر.	. A . es	TS		
IYDROLOG Wetland Hydro Primery Indicat	Y blogy indicators: ors iminumum of p	ne required	I: check all that app	N.	بر 	ط ر. 		TG nderv lodicat	xts (2 or more	required)
IYDROLOG Wetland Hydro Primacy Indicat	Y blogy Indicators: ots (minumum of c ater (A1)	ne requires	t: check all that app Water-St	ky) Lined Leaves (	(B9) (axo	بل ر. oept MLR:	Seco Seco 	nderv Indicat	xs (2 or more Leaves (89)	<u>required)</u> (MLRA 1, 2,
IYDROLOG Wetland Hydro Primacy Indicat Surface Wi High Water	Y blogy Indicators: ors <u>(minumum of c</u> ater (A1) r Table (A2)	ine required	t: check all that app Water-St 1, 2, 4	A, and 48)	(B9) (axc	بل ر. ept MLR:	 	rolery lodicati Natar-Stainer 4A, and 48	<u>xrs (2 or more</u> Leaves (89) I)	<u>required)</u> (MLRA 1, 2,
IYDROLOG Wetland Hydro Primacy Indicat Surface Wi High Water Saturation	Y biogy indicators: ors (minumum of c ater (A1) r Table (A2) (A3)	ine required	t check all that app Water-Sti Sat Crue	(y) ined Leaves ( A, and 48) (B11)	(B9) (exc	یل ر. ept MLR:	 	nderv lodicat Natar-Stained 4A, and 48 Drainage Path	<u>215 (2 or more</u> Leaves (89) 1) ams (810)	<u>required)</u> (MLRA 1, 2,
IYDROLOG Wetland Hydro Primary Indicat Surface Wi High Water Seturation Water Mari	Y biogy indicators: ors (minumum of g ater (A1) r Table (A2) (A3) ks (B1)	ne requirer	t check all that app 	inod Leaves ( A, and 48) (811) wertebrates (f	(B9) (exc B13)	ر ر	 	nderv lodicat Natar-Stained 4A, end 48 Drainage Path Dry-Season W	n <u>rs (2 or more</u> Leaves (89) I) Irms (810) Iater Table (C	<u>required)</u> (MLRA 1, 2, 2)
IYDROLOG Wetland Hydro Primary Indicat Surface W High Water Sectiment I Sectiment I	Y otogy Indicators: ors (mirumum of s ater (A1) T table (A2) (A3) ks (B1) Deposits (B2)	ne requires	i: check all that so: Water-St Sat Crue Aquatic li Aquatic li	(W) inned Leaves ( A, and 48) (B11) wertebrates (f Suffee Odor	(B9) (exc B13) (C1)	ب بر Nept MLR	- <u>Sec</u>	rderv lodicat Nater-Stained 4A, end 48 Drainege Path Dry-Seeson Vi Saturgtion Vis	ns (2 or more Leaves (89) I) ams (810) atar Table (C. ble on Aerial I	<u>required)</u> (MLRA 1, 2, 2) Imagery (C9
IYDROLOG Wetland Hydro Primary Indicat Surface Wi High Water Seturation Water Mart Sediment ( Drift Depos	Y ors (minumum of c arter (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sie (B3)	ne requires	f: check ell that sor Water-Sk Salt Crue Aquatic li Hydroger Oxidized	A, and 48) (B11) wertebrates (f Sulfde Odor Rhizosphares	(B9) (exc B13) (C1) along Lh	ing Root	A A * (C3)	roderv lodicati Natar-Stainec 4A, end 48 Drainage Path Dry-Season W Securation Vis Securation Vis	nts (2 or more Leaves (89) i) mms (810) fater Table (C ble on Aerial osition (D2)	<u>required)</u> (MLRA 1, 2, 2) magery (C9)
YDROLOG Wetland Hydro Primary Indicat Surface Wi High Water Seturation Water Mari Sectiment I Drift Depos Algei Mat c	Y biogy indicators: ots infurms of c ater (A1) T ble (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	ne requires	t; check ell that soc Water-Sk 1, 2, 4 Salt Crue Aquatto I Hydroger Oxidized Presence	Av) ined Leaves ( A, and 48) (B11) wertebrates (f Suffice Odor Relizospheres of Reduced la	(B9) (exc B13) (C1) along Lin ros (C4)	ی ر. wept MLR: ving Root:		ruderv lodicati Natar-Stainec 4A, end 48 Drainage Path Dry-Season Vi Saturation Vis Saturation Vis Saturation Vis Saturation Vis Saturation Vis	ors (2 or more Leaves (89) ams (810) ater Table (C ble on Aerial losition (D2) rd (D3)	<u>requited)</u> (MLRA 1, 2, 2) Imagery (C9)
IYDROLOG Wetland Hydro Primacy Indicate Surface Wi High Water Seturation Weter Mari Sectiment ( Drift Depos Algei Mat C Iron Denos	Y blogy indicators: ater (A1) T Table (A2) (A3) ks (B1) Deposits (B2) wie (B3) w Chast (B4) wie (B5)	ne requires	i, check all that sor Water-St 1, 2, 4 Salt Crue Aquestic II II Hydroger Oxidized Presence Recent II	42) ined Leaves ( A, and 48) 1 (811) wertebrates (f Sulfide Odor Rhizospheres of Reduced h o Reduction i	(B9) (exc B13) (C1) along Lik ron (C4) in Tilled 5	wing Roots	- Seco -	nderv Iodicati Nater-Stainer 4A, end 48 Dry-Season Vi Saturation Vis Seconcephic F Shallow Aquith AC-Neutral 1	205 (2 or more Leaves (89) I) ans (810) ater Table (C ble on Aerial osition (D2) and (D3) eat (D5)	<u>requited)</u> (MLRA 1, 2, 2) magery (C9)
IYDROLOG Primary Indicat Primary Indicat Surface Wi High Water Seturation Water Mart Setiment C Drift Depos Algei Mat c Iron Depos Surface Sin	Y biogy indicators: ors. (minumum of c ater (A1) r Table (A2) (A3) ks (B1) Deposite (B2) wis (B3) or Crust (B4) ite (B5) if Cracks (B8)	ne raquires	i: check all that and Water-Sti 1, 2, 4 Salt Crue Aquatic I: Hydroger Osidized Presence Recent I: Sturted i	by ined Leaves ( A, and 48) (B11) wertebrates (fl Sulfide Odor Rhizospheres of Reduction in r Streaged Pic	(B9) (exco B13) (C1) along Lin ron (C4) in Tifled E ants (C1)	wing Roots Goils (C8)	Second	nderv lodicati Nater-Stainec 4A, end 48 Drainage Path Drainage Path Drainage Path Drainage Path Securation Vis Seconorphic F Shallow Aquiti	rs (2 or more Leaves (89) ams (810) ater Table (C ble on Aerial ble on Aerial osition (02) rd (03) est (05) winds (05) 41	<u>required)</u> (MiLRA 1, 2, 2) Imagery (C9)
IYDROLOG Wetland Hydro Primacy Indicat Surface Wi High Water Seturation Water Mari Sectiment I Drift Depos Algei Mat c Iron Depos Surface So Inundation	Y biogy indicators: ors infurms of c ater (A1) T bio (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	na reguires	t; check ell that soc Water-Sk 1, 2, 4 Salt Crue Hydroger Oxidized Presence Recent in Sturted C	(k) (k) (b) (b) (b) (b) (b) (b) (b) (b	(B9) (exco B13) (C1) along Lin ros (C4) in Tifled E ants (C1) vite)	wept MLR; ving Root: Soils (C8) (LRR A)	A	A good and a second and a second and a second and a second a secon	25 (2 or more Leaves (39) i) ater Table (C ble on Aerial ostion (D2) ard (D3) est (D5) sunds (D6) (L1	required) (MLRA 1, 2, 2) Irnagery (C9) RR A)
IYDROLOG Wetland Hydro Surface W. High Water Seturation Weter Mari Seciment (1 Drift Depos Algei Mat C Iron Depos Surface So Surface So Surface So	Y blogy indicators: ater (A1) T Table (A2) (A3) tr (A2) (A3) tr (B1) Deposits (B2) bits (B3) or Crust (B4) bit (B5) bit Cracks (B8) Visible on Aerial i	ine requires magery (87	i check all that sor Water-St 1, 2, 4 Salt Crue Aquestic in Hydroger Oxidized Presence Recent Sturted c )Other (E)	by ind Leaves A, and 48) (811) Sulide Odor Rhizospheres of Reduced In or Reduction or Reduction or Stressed Pia plan in Rema	(B9) (axo B13) (C1) along Liv ron (C4) in Tifled E ants (D1) rrts)	ving Roots Soils (C8) (LRR A)	- Second - Second - C - C - C - C - C - C - C - C - C - C	rder/ Indicati Water-Stainer 4A, end 44 Treinage Path Dry-Season M Seomorphic F Shallow Aquit Raised Ant M Roised Ant M Frost-Heave H	275 (2 or more Leaves (39) I) Ins (810) later Table (C bie on Aerial boskion (D2) rd (03) est (D5) (Li ummocks (D2)	<u>requied)</u> (MLRA 1, 2, 2) Imagery (C9) (RR A) 7)
IVDROLOG Wetlend Hydr Primary Indicat Seturation Weter Mar Seturation Weter Mar Drift Depos Algel Mat c Iron Depos Surface So Inundetion Sparsety V	Y biogy indicators: ors. (minumum of c ater (A1) r Table (A2) (A3) ks (B1) Deposite (B2) kis (B3) or Crust (B4) kis (B5) di Cracks (B8) Visible on Aeritei legotated Concesu	imagery (87 a Surface (1	i check all that apr Water-St 1, 2, 4 Sati Crue Sati Crue Sati Crue Hydroger Didized Presence Recent in Sturted c 7) Other (E) 36)	ky tined Leaves ( A, and 48) (B11) vertebrates (( Sulfde Cdor Sulfde Cdor Sulfde Cdor Fibressef Pian plann in Rema	(B9) (exc B13) (C1) is along Lin rons (C4) in Tifled E ants (C1) rita)	wing Root: Soils (C8) (LRR A)	Second	A modery indicat Nater-Stained A ared 42 Drainage Path Dry-Season W Seturation Vis Seturation Vi	vis (2 or more Leaves (89) )) ms (810) later Table (C bis of Antal solition (D2) ord (D3) leat (D5) lunnocks (D7)	<u>requied)</u> (MLRA 1, 2, 2) Imagery (C9) RR A) 7)
IYDROLOG Wetland Hydro Prinacy Indicat Surface Wi High Water Seturation Water Mari Seciment I Drift Depos Gurface Sc Iron Depos Surface Sc Inundation Sparesty V Field Observat	Y biogy indicators: ors infurreum of a ater (A1) T sbie (A2) (A3) ts (B1) beposite (A2) wite (B3) tr Crust (B4) wite (B5) wit Crast (B4) wite (B5) wit Crast (B4) wite (B5) Wisible on Aerial if spectrad Concaw tions:	imagery (87	t; check ell that app Water-Sk 1, 2, 4 Salt Crue Aquatto Ii Presence Recent Ir Sturted c 7) Other (E) 38)	Ws b) tined Leaves ( A, and 48) (811) (811) Sulfide Odor Rhizospheres Of Reduced to on Reduction i r Stressed Pig plam in Rema	(B9) (exc B13) (C1) along Lh ron (C4) in Tifled E ants (C1) rka)	ving Root: Soils (C8) (LRR A)	A  s(C3) =	nderv Indicati Nater-Stainec 4A, end 45 Drainage Path Drainage Path Drainage Path Drainage Path Seturation Vis Securation Vis	ars 12 or more Leaves (39) )) arms (810) ater Table (C ble on Aartal I ostiton (D2) ater (D3) (ater (D3) (ater (D5) (ater (D5)) (ater (D5)	<u>required)</u> (MLRA 1, 2, 2) Imagery (C9) RR A) 7)
IYDROLOG Wetland Hydro Primacy Indicat Surface Wi High Water Seturation Water Mari Seturation Drift Depos Algei Mat C Iron Depos Surface So Surface So Sparredy V Field Observal Surface Water	Y biogy indicators: ors (minursum of c ater (A1) T Table (A2) (A3) T Table (A2) (A3) Deposits (B2) bis (B3) wir Crask (B4) is (B5) wir Cracks (B8) Visible on Aeries I regetisted Concaw boris: Present? Y	imagery (B) a Surface (I	i check all that so: Water-St 1, 2, 4 Sait Crue II Aquestic II Presence Recent II Stunted c 7) Other (E) 36) No Opent (II)	(b) ind Leaves ( A, and 48) (811) Sulfide Odor Rhizospheres of Reduced In or Reduction or Reduction or Reduction or Reduction or Reduction	(B9) (axo B13) (C1) along Lh ron (C4) in Tifled E ants (C1) rita)	ving Root: Soils (C8) (LRR A)	- Seco - Seco - C - C - C - C - C - C - C - C - C - C	Ridery Indicati Water-Stained 4A, and 48 Trainage Path Dry-Season W Secturation Vice Shallow Aquit Raised Ant Mi rost-Heave H	zis (2 or more Lesves (39) I) mis (810) fater Table (C) fater Table (C) is (02) mid (03) est (05) funds (06) (L1 ummocks (07)	<u>recuited)</u> (MLRA 1, 2, 2) magery (C9) RR A) 7)
IVDROLOG Wetlend Hydro Primary Indicat Seturation Weter Mar Seturation Weter Mar Drift Depos Algel Mat c Iron Depos Surface Soc Inundetion Sparsety V Field Observat Surface Water I Water Table Pri	Y biogy indicators: ors. (minumum of c ater (A1) r Table (A2) (A3) ks (B1) Deposite (B2) wis (B3) or Crust (B4) wis (B3) or Crust (B4) wis (B5) wit Cracks (B8) Visible on Aeritel legotated Concess Norae: Present? Y	imagery (87 s Surface (1 ies 1	i: check all that app Water-St 1, 2, 4 Salt Crue Aquatic III Hydroger Oxidized Presence Recent III Sturtéd C 10 10 10 10 10 10 10 10 10 10	(g) ind Leaves ( A, and 48) (G11) wertebrates (f Sulfac dorr Rhizospheres of Reduced It on Reduction i on Reduction i on Reduction i of Reset plain in Rema hohes):	(B9) (exc B13) (C1) storg Liv rom (C4) in Tifled E ants (D1) rits)	wing Roots Soils (C8) (LRR A)	Second	Today Indicat Nater-Stained Vater-Stained AA, end 42 Droinage Patt Dry-Season W Seomorphic F Shallow Aquit Seomorphic F Shallow Aquit Seomorphic F Shallow Aquit StacTheoural T Stained Ant M Froet-Heave H	ats (2 or more Leaves (80) )) mis (810) (ater Table (C ble on Aerial osition (D2) rid (03) (est (D5) (ummocks (D7)	<u>requied)</u> (MLRA 1, 2, 2) (magery (C9) (RR A) 7)
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IYDROLOG Wetlend Hydr Primary Indicat Setrace W. High Wate Ssturation Water Mari Setimant I Drift Depos Surface Soc I ron Depos Surface Soc I ron Depos Surface Soc I rundesion Sparsely V Field Observat Surface Water Table Pr Saturation Pres (Includes capit) Describe Recor	Y biogy indicators: ors iminumum of c ater (A1) r Table (A2) (A3) ks (B1) beposits (B2) uits (B3) wit Cracks (B8) wit Cracks (B8) wit Cracks (B8) wit Cracks (B8) wit Cracks (B8) wit Cracks (B8) Visible on Aerial legetated Concaw bons: Prasent? Y uent? Y any fringe) rided Data (stream	imagery (87 a Surface (f es f es f gauge, mo	(; check ell that soc Water-Sti 1, 2, 4 Sait Crue Aquatic II Hydroger Diskized Presence Recent Ir Sturted C 7) Other (E) 38) No Depth (II No Depth (II nitoring well, aertal	Wation Leaves ( A, and 48) (611) (611) Sulide Odor Rhizosphares ( of Reduced to on Reduction i Stressed Pig plein in Rema hohes): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (chee): (che	(B9) (axo B13) (C1) stong this atong this atong this in Triled E ants (D1) rrites)	ving Root	A	nderv Isclicat Water-Stainec AA, end 48 Dreinege Path Dreinege Path Dreinege Path Dreinege Path Seturstion Vis Beomorphic F Sator Aquit AC-Neutral T Raised Ant M Froel-Heave H Procent?	yrs (2 or more Leaves (89) )) sms (810) ater Table (C ble on Aerial loaition (D2) ard (D3) est (D5) unde (D6) (L1 ummocks (D7) Yes	<u>requiced)</u> (MLRA 1, 2, 2) Imagery (C9) RR A) 7) No
IYDROLOG Wetland Hydro Prinavy Indicat Surface W High Water Seturation Water Mari Sediment ( Drift Depos Gurface So Inundation Sparsely V Field Observat Surface Water Table Pr Water Table Pr Ginckides capitif Describe Reco	Y biogy indicators: ots infurrism of c ater (A1) T sble (A2) (A3) ts (B1) Deposits (B2) wits (B3) wits (B3) wits (B3) wits (B3) wits (B4) wits (B4) wits (B5) wits (B4) wits (B4) wit	imagery (87 s Surface ( 'es i es i gauge, mo	I check all that acc Water-Sk 1, 2, 4 Salt Crue Aquatic II Hydroger Oxidized Presence Recent Ir Sturted c Presence Recent Ir Oxidized Presence Recent Ir Oxidized Presence Recent Ir Sturted c Degit (ii No Degit (ii Degit (ii Deg	Ws           by           sined Leaves (           A, and 48)           (B11)           (B11)           (B11)           Suffice Odor           Rhizospheres           of Reduced In           no Reduction on Reduction           nches):	(B9) (asco (B13) (C1) Litor (C4) ators (C4) anta (C1) rrf(a) cous inspe	, , , , , , , , , , , , , , , , , , ,	A	nderv Iodicati Nater-Stainer 4A. end 4E Dreinage Patt Droinage Patt Droinage Patt Droinage Patt Droinage Patt Droinage Patt Stallow Aquiti Raised Ant Mi roct-Heave H ny Present?	bits (2 or more Leaves (30) i) mms (B10) taker Table (2) ble on Aarial I osition (02) und (03) est (05) unds (06) (Li ummocks (07) Yes	<u>requited)</u> (MLRA 1, 2, 2) Imagery (C9) RR A) () No

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3
sicantOwner:	-	State: Lug Sampling Point: DP+5
estigeor(s): Zd Sewal	Section, Township, F	tange: NW 14 529 731
ndform (hillslope, terrace, etc.):	Local relief (concave	, convex, none): Slope (%);
bregios (LRR):	Lat	Long: Datum:
MapUnit Name: Custa		NWI classification:
Climatic / hydrologic conditions on the site typical for	this time of year? Yes No	(If no, explain in Remarks )
Vegetation Soit or Hydrology	significantly disturbed? An	"Normal Circumstarions" research? Yes No
Veostation Soil or Hydrology	naturally problematic? ///	nadad avalain any anguart in Ramake )
		Indexed. Opening an instant of Bit 1 Series (D. )
JMMART OF FINDINGS - Attach site mi	ap showing sampling point	locations, transects, important features, etc.
lydrophytic Vegetation Present? Yes	No hathe ormet	
iydric Soil Present? Yes	No within a West	and? Yas No
Vetland Hydrology Present? Yes	No	
emarks: Manued Etaled		
,		
GETATION Use scientific names of pl	ants.	
ree Statum (Pint size	Absolute Dominant Indicator	Dominance Test worksheet:
	A MARTI PROGRESS STORES	Number of Dominent Species     That Are OBL EACIW or EAC     (A)
		(A)
		Total Number of Dominant Species Across All Strater (B)
	= Total Cover	That Are OBL, FACW, or FAC:
aplingShrub Stratum (Plot size:)		
		Travel & Cruces of Multistration
		ORI species vis
·		FACW species x2 =
·		FAC species x3=
	= Total Cover	FACU species x 4 =
erb Stelum (Plot size)	En Fri	UPL species x 5 =
- Ag y you ryo		Column Totals: (A) (B)
		Descriptions hadre a Dife of
		Freedom Construction Indicators
		Dominance Test is >50%
		Prevalence Index is ≤3.01
		Morphological Adaptations' (Provide supportion
		data in Remarks or on a separate sheet)
		1 Manual Manus Amander Provide 1
		VYBRENCI PRON-VEISCULER PSEIDLS
		Problematic Hydrophytic Vegetation' (Explain)
۸ ۱.		Problematic Non-Vescular Prants Problematic Hydrophytic Vegetation' (Explain) 'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	= Total Cover	volument Non-Vescular Planas     Problematic Hydrophytic Vegetation' (Explain)     'Indicators of hydric soil and wetland hydrology must     be present, unless disturbed or problematic.
),,,,,,,,,,,,	= Total Cover	
)	= Total Cover	
)  /oodv Yine Sitajum (Plot size:)	= Total Cover	
22002 Yone Stratum (Plot size:) Bere Ground in Herb Stratum	= Total Cover	

Denth	Mairie		Parter C	antime			
(inches)	Color (moist)	*	Color (moiet)	% Tune	1.00	Tavlune	Bamadet
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Lillion -	1.2712		<u> </u>				
	*****						
	******					****	
		·					
Type: C=Conce	Intration, D=Dep	letion, RM=Re	luced Matrix, CS=C	Covered or Coate	d Sand Grain	ns, Loc	ation: PL=Pore Lining, M=Mainic
lydric Soil indi	cators: (Applic	able to all LRI	ts, unless otherwi	se noted.)		Indicato	rs for Problematic Hydric Solle*:
Histosol (A1	)		Sandy Redox (S5)	l .		2 cm	1 Muck (A10)
Histic Epipe	ton (A2)		Stripped Matrix (S	5)		Red	Parent Material (TF2)
Black Histic	(A3)		Loamy Mucky Min	eral (F1) (except	MLRA 1)	Othe	r (Explain in Remarks)
Hydrogen S	ulfide (A4)		Loamy Gleyed Ma	lrix (F2)			
Depleted Be	low Dark Surfac	e (A11)	Depleted Matrix (F	3)			
Thick Dark \$	Surface (A12)		Redox Dark Surfac	ce (F6)		aIndicato	rs of hydrophytic vegetation and
Sendy Muck	y Mineral (S1)		Depleted Dark Sur	face (F7)		wettar	nd hydrology must be present,
Sandy Gleye	eti Matrix (S4)		Redox Depression	is (F8)		unies	s disturbed or problematic.
lestrictive Lay	r (If present):				T	بديريه امجازي كالتستيمين ويت	
Type:							
Death (inches	N.		•		1	Livertein Bail.	Branant's Van No
Second Second	·····		-		1		
	11/11/11/11/11/11/11/11/11/11/11/11/11/		<b>~</b> ~~	0	dia	ろ	
YDROLOGY Netland Hydrol	ogy indicators:		<b>~</b>	0	ed i ci	25	
YDROLOGY Netlend Hydrol Primery Indicator	ogy indicators: s iminimum of p	ne required; ct	eck all that sophy)	0	e) i ci	255 	idev indicators (2 or more required)
YDROLOGY Netlend Hydrol Minery Indicato Surface Wal	ogy Indicators: s.iminimum of o er (A1)	ne required: ct	eck all that sook) Water-Staine	d Leaves (B9) (a	C I I C		vderv indicators (2 or more required) fator-Stained Leaves (89) (MLRA 1,
YDROLOGY Netland Hydrol Primery Indicatos Surface Wal High Water	ogy indicators: s immum of o er (A1) Table (A2)	ne required: ct	eck all that sophy) Water-Staine 1.2 4A.a	d Leaves (B9) (a:	KCEPI MLRA	Secon W	Idery Indicators (2 or more required) fator-Stained Leaves (59) (MLRA 1, 4A. and 43)
YDROLOGY Netland Hydrol 2rimery Indicato Surface Wat High Water Saturation (/	ogy Indicators: s. iminimum of o er (A1) Fable (A2) 3)	ne required: ct	eck all that sophy) Water-Staine 1, 2, 4A, a Sait Crust (B:	d Leaves (B9) (a: ind 45) 11)	KCept MLRA	Secon - W	Idev Indicators (2 or more required) fater-Stained Leaves (89) (MLRA 1, 4A, and 49) reliance Patters (810)
YDROLOGY Netland Hydroi Primary Indicato Surface Wat High Water Water Marks	ogy indicators: s <u>internets of p</u> er (A1) Table (A2) 13) (B1)	ne required: ct	eck all that sophy) Water-Staine 1, 2, 4A, a Sait Cruel (B) Acustic Invert	d Leaves (B9) (a: nd 48) 11) https://doi.org/10.1000/100000000000000000000000000000	C I I C C		view Indicators (2 or more required) fator-Stained Leaves (89) (MLRA 1, 4A, and 45) reinage Patterns (810) re:Seern Water Table (72)
YDROLOGY Netland Hydroi Suface Wat High Water Saturation ( Water Marks Saturent D	ogy Indicators: s <u>inhumann of p</u> er (A1) Fable (A2) i3) i(B1) icasis (B2)	ne required: ct	eck all that apoly) Water-Staine 1, 2, 4A, a Sait Crust (B: Aquatic Inver Hutmone	d Leaves (B9) (a: nd 48) (1) hebrates (B13) fishe Oder (C1)	KCept MLRA		Idery Indicators (2 or more required) fator-Stained Leaves (69) (MLRA 1, 4A, and 45) reinage Patterns (B10) ry-Seeson Water Table (C2) et action (Article on Article Internet) (C2)
YDROLOGY Netland Hydrol Crimary Indicato Suface Wat High Water Saturation ( Water Marks Setwart Down	ogy Indicators: s. <u>Internant of o</u> er (A1) Fable (A2) 33) 1 (B1) 1 (B1) 1 (B1) 1 (B2) 1 (B2)	ne required: ct	eck all that apply) Water-Staine 1, 2, 4A, a Sat Crust (B- Aquetic Inver Hydrogen Sti Outline Sti	d Leaves (B9) (a: nd 4B) 11) hebrates (B13) life Odor (C1) contents	KCept MLRA		idary Indicators (2 or more required) fator Steined Leaves (89) (MLRA 1, 4A, and 43) reinage Patterns (810) ry-Season Water Table (C2) sturgtion Visible on Aerial Imagery (C engenetitic Station (1711)
YDROLOGY Netland Hydrol Striace Wat High Water Seturation ( Water Marks Sediment D Drift Deposit	ogy indicators: s iminimum of o er (A1) Table (A2) 33) ((B1) sposits (B2) s (B3) Court (B1)	ne required; st	eck all Ihal sook/ 	d Leaves (B9) (er Ind 4B) (1) Hebrates (B13) Kide Odor (C1) cospheres along (2)	Kospt MLRA	Secon W Du Du Du Du Du Du Du Du Du Du Du Secon	Idev Indicators (2 or more required) fater-Stained Leaves (89) (MLRA 1, 4A, and 4B) reinage Patterns (810) ry-Sesson Water Table (C2) sturation Visible on Aerial Imagery (C eomorphic Position (72) believe 4 without (72)
YDROLOGY Virinet/ Indicato Surface Wai High Water Seturation ( Water Marks Setiment D. Drift Deposit Algai Mat or	ogy Indicatora: s_internam of o ref(A1) reble (A2) 33) ((B1) sposits (B2) s (B3) Crust (B4) crust (B4)	ne required: of	eck all that sooty) — Water-Staine 1, 2, 4A, a — Sait Cruet (B: — Aquatic Inver — Hydrogen Su — Oxidiand Rhis — Presence of F	d Leaves (B9) (er ind 4B) 11) hebrates (B13) lifde Odor (C1) Reduced Iron (C4	Koept MLRA		Idery Indicators (2 or more required) Inter-Stained Leaves (89) (MLRA 1, 4A, and 48) reinage Patterns (810) ry-Seeson Water Table (C2) sturation Visible on Aerial Imagery (C eomorphic Position (02) hallow Aquitard (03)
YDRQLOGY Netland Hydrol Crimery Indicator Surface Wat High Water Saturation (/ Water Marks Sediment D. Orit Deposit Algai Mat or Irot Deposit	ogy Indicators: s <u>irohumaum of o</u> er (A1) Table (A2) A3) (B1) sposits (B2) s (B3) Crust (B4) s (B5)	ne required: ct	eck all that apply) Water-Staine 1, 2, 4A, a Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhis Presence of f Recent fron F	d Leaves (89) (a: nd 48) 11) lebrates (813) fide Odor (C1) sospheres along ( reduced from (C4 leduction in Tille	Koept MLRA	Secon 	klary indicators (2 or more required) fator-Stained Leaves (89) (MLRA 1, 4A, and 43) ry-Season Water Table (C2) sturstion Visible on Aerial Imagery (C eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
YDROLOGY Notiend Hydrol 7rimery Indicato Suface Wat High Water Seturation (// Water Marks Sediment D Drift Deposit Algel Mat or Iron Deposit Surface Soit	ogy Indicators: s ininimum of g er (A1) Fable (A2) 33) i (B1) s (B3) Crust (B4) s (B3) Crust (B4) c (B5) Cracks (B6)	ne required; cf	eck all that sook/ 	d Leaves (B9) (e nd 4B) (1) Hebrates (B13) Hide Odor (C1) cospheres along ( Reduced Iron (C4 Eduction in Tiller resead Planta (D:	Koept MLRA		Idev Indicators (2 or more required) fater-Stained Leaves (89) (MLRA 1, 4A, and 49) reinage Patterns (810) ry-Sesson Water Table (C2) aturation Visible on Aerial Imagery (C eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
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YDROLOGY Mettend Hydrol Jornary Indicato Surface Wal High Water Seturation ( Water Marks Setiment D. Drift Deposit Agai Mat or Iron Deposit Surface Soit Inundation V Spareely Ve Field Observatio Surface Water 7 Settrate Pres Saturation Prese Includes cepiter Describe Record	ogy indicators: s (minumum of p er (A1) fable (A2) A3) (B1) sposits (B2) s (B3) Cracks (B5) Gracks (B5) isible on Aerial i gatated Concave pres: recent? Y ht? Y fringe) ed Deta (stream	ne required; of magery (67) I Surfece (88) es No es No geuge, monito	eck all that apply. Water-Staine 1, 2, 4A, a Salt Crust (B' Aquatic Inver Hydrogen Su Oxidized Rhit Presence of I Recent Iron F Stunted or St Other (Explain Depth (Inche Depth (Inche	d Leaves (B9) (a: nd 4B) 11) tebrates (B13) fide Odor (C1) scospheres along ( reduced from (C4 teduced from (C4	Living Roots ) J Solis (C8) 1) (LRR A) Wettern pections), if (	Secon 	Idery Indicators (2 or more required) fater-Stained Leaves (89) (MLRA 1, 4A, and 49) eninge Patterns (810) ny-Season Water Table (C2) sturstion Visible on Aerial Imagery (C eomorphic Position (D2) hallow Aquitand (D3) AC-Neutral Test (D5) alsed Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
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Western Mountains, Valleys, and Coast - Interim Version

Seanth amar	City	pourity	Onto Ling Continuing Dates
alexandres Fill Sources	1	int Trunchin D	State: UPF Sampling Point: UFF
floom (hillstone tempon ate h	38G	ion, township, Ha	
norm (newsope, ternace, etc.):	Loci	H 1999) (CONCAVE,	convex, none): Slope (%);
agios (LKR).			Long: Datum:
			NVVI Classification:
simatic / hydrologic conditions on the site typical for	this time of year?	res No_	(If no, explain in Remarks.)
vegetation Solt, or Hydrology	significantly dialu	rbed? Are	"Normal Gecumstances" present? Yes No
vegetation Solf, or Hydrology	naturally problem	atic? (if n	oeded. explain any answers in Remarks.)
MMARY OF FINDINGS - Attach site mi	up showing sau	npling point	locations, transects, important features, etc.
drophylic Vegetation Present? Yes	NO		
dric Soil Present? Yes	No	is the Sampler	d Area
tland Hydrology Present? Yes	No	WITHIN & WOOL	NG7 T46 NO
marie: Manuel Euld			
100000			
			*****
GETATION Use scientific names of pl	ants.		
e Statum (Plot size:	Absolute Do % Cover So	ninant Indicator	Dominance Test worksheet:
			That Are OBL, FACW, or FAC:
			Total Number of Deminent
			Species Across All Strata:
			Percent of Dominant Species
Sing Chash Stratum (Diataires	= Te	xal Cover	That Are OBL, FACW, or FAC:
Allensinue Sumern (Price Size:)			Provalence Index worksheet
			Total % Cover of: Multiply by:
			OBL species x1=
			FACW species x 2 =
			FAC species x3 =
	= T(	rtal Cover	FACU species x 4 =
FICE CALL	52	FAC	UPL species x 5 =
Actaliza M		The	Column Totals: (A) (B)
			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
			Dominance Test is >50%
			Prevalence index is \$3.0 ¹
			Morphological Adaptations' (Provide supporting
			Welland Non-Vascular Plante1
			Problematic Hydrophytic Vegetation ¹ (Explain)
			Indicators of hydric soll and wetland hydrology must
			be present, unless disturbed or problematic.
		al Cover	
adv Yine Skratum (Plot size: )	= To		
ody. Yine Skratum (Piot size:)	= To		Hydrophytic
ody Yine Stratum (Plot size:)	= To		Hydrophytic Vegetation
ody. Yine Skatum (Plot size:)	= To = To = To	al Cover	Hydrophytic Vegetation Present? Yes No
stry Yine Stratum (Plot size:)	= To = To ===============================	al Cover	Hydrophytic Vegetation Present? Yes No

Danik Madu	Dades Cashing	
(inches) Color (moist)	Kegox realizes	Tautura Bamada
		- Iexane - Ramers
<u></u>		
		e. *
		**********************
management managements and		
		-
'Type: C=Concentration, D=Depleti	on. RM=Reduced Matrix. CS=Covered or Coated Send C	Grains, ² Location; PL=Pore Lining, M=Matrix.
Hydric Soil indicators: (Applicabl	le to all LRRs, unless otherwise noted.}	Indicators for Problematic Hydric Solla ¹ :
Histosol (A1)	Sandy Redox (S5)	
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1	I) Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	· · ··································
Depleted Below Dark Surface ()	A11) Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	Indicators of byticonbytic vanetation and
Sandy Musicy Minaral (S1)	Depleted Dark Surface (F7)	waterd bytelenger must be present
Sandy Giaved Matrix (S4)	Redox Depressions (58)	manana myarongy mass or promote,
Restrictive   aver (if present):		
The second of the second		1
Type:	Aprilability multiple groups	
Depth (inches):		Hydric Soil Present? Yes No
Remarks.		
		lints
TYDROLOGY	Alex in	Jints
HYDROLOGY Wetland Hydrology Indicators	No. 14.	lints
HYDRQLOGY Wetland Hydrology Indicators:	. نەر   ن	Jints
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one	No. 12	Secondery Indicators (2 or more resulted)
HYDROLOGY Wetland Hydrology Indicators: Primery Indicators: Insumum of one Surface Water (A1)	required: check all livel sophy) 	
HYDRQLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surfac Water (A1) High Water Table (A2)	required: check sil that soolry Water-Stained Loaves (B9) (except Mil 2, 4A, and 4B)	Lin January Indicators (2 or more resulted) LRA Water-Stained Leaves (59) (MLRA 1, 2, 4A, and 4B)
HYDROLOGY Wetland Hydrology Indicators: Primery Indicators (miximum of one Surface Water (A1) — High Water Table (A2) Seturation (A3)	necuired: check all that apply) 	Secondery Indicators (2 or more resulted) Secondery Indicators (2 or more resulted) LRA Weiter-Stained Leaves (89) (MLRA 1, 2, 4A, and 4B) Drainage Patterna (810)
HYDROLOGY Wetland Hydrology Indicators: Primacy Indicators: (minumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (R1)	necuired: check eil fhel sophy) Water-Stained Leaves (B9) (except Mi Sat Crust (B1) Sat Crust (B1) Acustic (Parthyrates (B13)	Lin J. Secondary Indicators (2 or more resulted) LRA Water-Stained Leaves (90) (MLRA 1, 2, 4A, and 4D) Drainage Patterns (810) Droisage Nations (810)
HYDROLOGY Wetland Hydrology Indicators: Primery Indicators (minimum of one Surface Water (A1) High Water Table (A2) Seturation (A3) Weter Marks (B1) Setemet Decomis (B2)	required: check sil that soolry 	Lin Xi Secondery Indicators (2 or more resulted) LRA Water-Stained Leaves (59) (MLRA 1, 2, 4A, and 4B) Dreinage Patterns (B10) Dry-Season Water Table (C2) Statustics (Cable to Andre 1) (C2)
HYDROLOGY Wetland Hydrology Indicators: Primery Indicators (minumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Weter Marks (B1) Satimet Deposits (B2) Deb Descrite (B2)	required: check sil likel sophy) — Water-Stained Leaves (B9) (except Mil 1, 2, 4A, and 4B) — Sat Crust (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulfide Odar (C1) — Ordered Bittancher	Secondary Indicators (2 or more resulted)         LRA
HYDROLOGY Wetland Hydrology Indicators: Primacy Indicators: (minumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sofiment Deposits (B2) Ditt Deposits (B3)	required: check all that sophy 	LIRA
HYDROLOGY Wetland Hydrology Indicators: Erimety Indicators (minimum of one Surface Water (A1) High Water Table (A2) Seturation (A3) Weter Marks (B1) Sediment Deposits (B2) Dritt Deposits (B3) Agei Mat or Crust (B4)	required: check sil that soolry 	Jin Jan       Secondery Indicators (2 or more resulted)         LRA       Water-Stained Leaves (99) (MLRA 1, 2, 4, end 48)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (Influmum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Argal Mar tor Crust (B4) Iron Deposits (B5)	required: check all that sophy 	Secondary Indicators (2 or more resulted)         LRA       Water-Stained Leaves (99) (MLRA 1, 2, 4A, end 4D)         Drainage Patterns (810)       Dry-Season Water Table (C2)         Saturation Vielbie on Aerial Imagery (C9 cols (C3)       Geomorphic Position (D2)         Shallow Aquitard (03)       FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primacy Indicators (minumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sofument Deposits (B3) Agei Met or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	recuired: check all that apply: Water-Stained Leaves (B9) (except Mil 1, 2, 4A, and 4B) Sati Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Oddr (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent fron Reduction in Tilled Soils (C Sturied or Stressed Planta (D1) (LRR M	Secondary Indicators (2 or more resulted)         LRA       Water-Stained Leaves (89) (MLRA 1, 2, 4A, end 48)         Drainage Patterns (810)         Dry-Season Water Table (C2)         Saturation Vielbie on Aeriel Imagery (C9 costs (C3)         Shattow Aquitard (03)         26)       FAC-Neutral Test (D5)         A)       Raised Ant Mounds (D5) (LRR A)
HYDRQLOGY Wetland Hydrology Indicators: Primacy Indicators (informum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Weter Marks (B1) Saturation (A3) Weter Marks (B1) Saturation (A3) Dritt Deposits (B2) Dritt Deposits (B3) Algei Met or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerisa Ima	required: check sil linet spoly) 	Jin Jan       Secondery Indicators (2 or more resulted)         LRA       Water-Stained Leaves (99) (MLRA 1, 2, 4, end 48)
HYDROLOGY Wetland Hydrology Indicators: Primery Indicators (Inhumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Weter Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Atgal Mat or Crust (B4) Iron Deposits (B5) Surface Soit Cracks (B8) Inundation Viable on Aerial Ima Sparsely Vegotated Concare Si	required: check eil litel apply) 	Secondary Indicators (2 or more resulted)         LRA       Water-Stained Leaves (90) (MLRA 1, 2, 4A, and 4D)
HYDROLOGY Wetland Hydrology Indicators: Primacy Indicators (Initiamum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sofument Deposits (B3) Agei Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Ima Field Observations:	recuired: check sil fiel scoly) — Water-Steined Leaves (B9) (except Mil 1, 2, 4A, and 4B) — Sat Crust (811) — Aquatic Invertebrates (B13) — Hydrogen Sulfde Odu (C1) — Oxidized Rhizospheres along Living Ro — Presence of Reducion in Tailed Soils (C — Presence of Reduction in Tailed Soils (C — Sturted or Stressed Plena (D1) (LRR / gery (B7) — Other (Explain in Remarka) urlace (B8)	Secondary Indicators (2 or more required)      Water-Stained Leaves (99) (MLRA 1, 2,         4A, and 4B)         Dreinage Patterns (810)         Dry-Season Water Table (C2)         Saturation Visible on Aniral Imagery (C9         Saturation Visible on Aniral Imagery (C9         Shallow Aquitard (03)         FAC-Neutral Test (D5)         A)        Raised Arit Mounds (C6) (LRR A)         Frost-Heave Hummocke (D7)
HYDROLOGY Wetland Hydrology Indicators: Primery Indicators Inhumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Weter Marks (B1) Sodiment Deposits (B2) Drift Deposits (B3) Algei Net or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B8) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Si Field Deservations: Surface Note Depage 2	required: check sil linet spoly) 	Jin Jin         Secondary Indicators (2 or more resulted)         LRA       Water-Stained Leaves (99) (MLRA 1, 2, 4, end 48)         Drainage Patterns (B10)       Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (C9 cols (C3)       Geomorphic Position (D2)         Shalkow Aquitard (D3)       Shalkow Aquitard (D5)         A)       Raised Ant Mounds (D6) (LRR A)         Frost-Heave Hummocke (D7)       Shalkow Ruth Rest (D7)
HYDROLOGY Wetland Hydrology Indicators: Primery Indicators (Intrumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Met or Crust (B4) Iron Deposits (B5) Surface Soit Cracks (B5) Surface Soit Cracks (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Si Field Observations: Surface Water Present? Yes	recuired: check all that sophy 	Secondary Indicators (2 or more resulted)         LRA       Water-Stained Leaves (99) (MLRA 1, 2, 4A, and 49)         Drainage Patterns (810)       Drainage Patterns (810)         Dry-Season Water Table (C2)       Saturation Visible on Aerial Imagery (C9 costs (C3)         Secondary Indicators (C2)       Shattow Aquitard (03)         Shattow Aquitard (03)       FAC-Neutral Test (05)         A)       Raised Ant Mounds (06) (LRR A)         Frost-Heave Hummocke (D7)       Frost-Heave Hummocke (D7)
HYDRQLOGY Wetland Hydrology Indicators: Primary Indicators (Internet of one Seturation (A3) Seturation (A3) Weter Marks (B1) Seturation (A3) Weter Marks (B1) Seturation (A3) Dritt Deposits (B3) Dritt Deposits (B3) Dritt Deposits (B5) Sutrace Seti Cracks (B6) Intundation Visible on Aerial Ima Spersely Vegetated Concave Si Field Observations: Surface Water Present? Yes Water Table Present? Yes	recuired: check all that apply 	Jin J. Jin J.         Secondary Indicators (2 or more required)         LRA
HYDROLOGY Wetland Hydrology Indicators: Erinary Indicators (Inhumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sodiment Deposits (B2) Drift Deposits (B3) Algal Met or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concare St Field Observations: Surface Water Present? Yes. Water Table Present? Yes.	required: check all linet apply)	Secondary Indicators (2 or more resulted)     Secondary Indicators (2 or more resulted)     A, and 4D)     Drainage Patterns (810)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9     Sols (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocke (D7)  tiand Hydrology Present? Yes No
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (Intrumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sadiment Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soit Cracks (B5) Inundation Visible on Aerisl Ima Spensity Vegetated Concave Si Field Observations: Surface Water Present? Yes Submittion Present? Yes	recuired: check all that sophy 	LIRA Secondary Indicators (2 or more resulted) LIRA Water-Stained Leaves (69) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (810) Dry-Season Water Table (C2) Saturation Vielble on Aeriel Imagery (C9 Sots (C3) Geomorphic Position (D2) Shaltow Aquitard (O3) 26) FAC-Neutral Test (D5) A) Raised Ari Mounds (05) (LRR A) Frost-Heave Hummocks (D7) tland Hydrology Present? Yes No
HYDRQLOGY         Wetland Hydrology Indicators:         Primacy Indicators (Informum of one         Sturface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Saturation (A3)         Dritt Deposits (B3)         Algei Met or Crust (B4)         Iron Deposits (B5)         Sutrace Soil Cracks (B6)         Inundation Visible on Aerial Ima         Sparsely Vegetated Concave Si         Field Observatione:         Surface Water Present?         Yes         Water Table Present?         Vegetifiely fringe?         Describe Recorded Data (stream getifier)	recuired: check sil that spot/ 	Secondary Indicators (2 or more required)      Ar, and 4B)     Dreinage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9     Seturation Visible on Aerial Imagery (C9     Shallow Aquitard (03)     FAC-Neutral Test (D5)     A)     Raised Art Mounds (C6) (LRR A)     Frost-Heave Hummocke (D7)  ttand Hydrology Present? Yes No ), if evailable;
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (miximum of one         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sodiment Deposits (B2)         Dritt Deposits (B3)         Algai Mat or Crust (B4)         Iron Deposits (B5)         Juntace Soil Cracks (B5)         Inundation Visible on Aerial Ima         Sparsely Vegetated Concave Si         Field Observations:         Surface Water Present?         Yeas         Sturation Present?         Yeas         Destribe Present?         Yeas         Subarition Present?         Yeas         Destribe Recorded Data (stream get	recuired: check all that sooly)	Secondary Indicators (2 or more required)      A, mot 48)     Dreinage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9     Sots (C3)    Geomorphic Position (C2)     Shatlow Aquitard (O3)     FAC-Neutral Test (D5) A)    Raised Ant Mounds (C6) (LRR A)     Froel-Heave Hummocke (D7)  ttand Hydrology Present? Yes No ), if available:
HYDROLOGY         Wetland Hydrology Indicators:         Primery Indicators (Inflamman of one.         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Table (A2)         Dift Deposits (B3)         Argai Met or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Ima         Sparsely Vegetated Concare Sr         Field Observations:         Surface Water Present?         Yeas         Saturation Present?         Yeas         Sutarice Recorded Data (stream ge         Remarks:	required: check all linet apply)	Secondary Indicators (2 or more resulted)      IRA
HYDROLOGY Wetland Hydrology Indicators: Effinety Indicators (Innumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Atgal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B5) Inundetion Viable on Aerial Ima Spersely Vegetated Concave Si Field Observationa: Surface Water Present? Yes Surface Water Present? Yes Surface Bresent? Yes Surface Concer Si Field Observationa: Surface Water Present? Yes Surface Mater Present? Yes Surface Concer Si Pater Table Present? Yes Surface Concer Si Describe Recorded Data (stream ge Remarks.	recaired: check all that sophy	Secondary Indicators (2 or more resulted)     Secondary Indicators (2 or more resulted)     Water-Stained Leaves (99) (MLRA 1, 2,         4A, and 49)     Droirage Patterns (810)     Dry-Season Water Table (C2)     Saturation Vielble on Aerial Imagery (C9     Station Vielble on Aerial Imagery (C9     Shallow Aquitard (03)     FAC-Neutral Test (05)     A)    Raised Ant Mounds (06) (LRR A)     Frost-Heave Hummocke (D7)     thand Hydrology Present? Yes No ), if available:
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (Inhumum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sodiment Deposits (B2) Drit Deposits (B3) Arigal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B5) Inundation Visible on Aerial Ima Spareely Vegetated Concave S Field Observations: Surface Water Present? Yes Sutrace Water Present? Yes Saturation Present? Yes Remarks.	required: check all lifet apply	Secondery Indicators (2 or more resulted)      Secondery Indicators (2 or more resulted)      The start of Leaves (80) (MLRA 1,     4A, and 48)     Dreinage Patterns (810)     Dry-Season Water Table (C2)     Saturation Vielble on Aeriel Imagery (C     Saturation Vielble on Aeriel Imagery (C     Saturation Vielble on Aeriel Imagery (C     Shalkow Aquitari (C2)     Shalkow Aqu

Western Mountains, Valleys, and Coast - Interim Version

Western Mountains, Valleys, and Coast - Interim Version

SOIL

plicen/Owner:			State UA- Samoting Print DP# 7
vestigator(s): Ed Sewal	Secti	on Townshin Ra	NW 14 55 SEI TTI
notorm (hillslope, terrace, etc.);	Loca	i telisf (concave.	convex none): Slope (%):
bregion (LRR):	Lat		Long: Detum:
il Map Unit Name: Custer			NWI classification
e Climatic / hydrologic conditions on the site hydrol for	this time of year?	(as	/If no evolution in Remarks )
e Veodestion Soil or Hydrology	sincificantly dista	theri? Are	Normal Circumstances' reserve? Yes No
Vanitation Soil or Hydrology	naturally poplare	atic? //f.cu	aded avoid any angular in Demote )
		••••••••••••••••••••••••••••••••••••••	COURSE CARACTER AND THE AND THE AND THE AND
JAMMART OF FINDINGS - Attach site ma	ap showing san	npling point h	ocations, transects, important features, etc.
ydropłytic Vegetation Present? Yes	No	is the Samular	
lydric Soil Present? Yes	No	within a Wetley	od? Yes No
/elland Hydrology Present? Yes	No		
emane: Mowed Fileld			
•			
	Absolute Dev	nioant Indicator	Dominance Test worksheet
res Statum (Plot size:)	% Cover Spe	cies? Status	Number of Dominant Soacias
-			That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant
			Species Across All Strata: (B)
-			Percent of Dominant Species
aplingShrub Stratum (Plot size:)		tal Cover	That Are OBL, FACW, or FAC: (A/B)
· ••••••••••••••••••••••••••••••••••••			Prevalence index worksheet:
, ,			Total % Cover of: Multiply by:
			OBL species x 1 =
			FACW species X 2 =
	-		FAC species x3=
erb Stratum (Plot size	/ ····································	fas Cover	IPI species v 5 z
Twaxecon official	<u>~ 20</u> _	$\sim$	Columo Totale (A)
Hyperchant radial	132	FAN	(b)
Haran Maya	2	FAL	Prevalance Index = B/A =
			Hydrophytic Vegetation Indicators:
			Downlance Test is >50%
-			Mombolonical Adaptations' (Denuida automatica
			data in Remarks or on a separate sheet)
			Wetland Non-Vescular Plants
			Problematic Hydrophytic Vegetation' (Explain)
l			Indicators of hydric soil and wetland hydrology must
) 	the second se		we provert, energy creatings or proceedings,
	= Tot	as cover a	
0	= Tot		
0	= Tot	a: Cover	Hydrophytic Varmetelion
0	= Tot	ai Cover	Hydrophytic Vegetation Present? Yes No
0	= Tot	bi Cover	Hydrophytic Vegetation Present? Yes No

Tanda Adaministration (Amanenia to bie to	when meaning to monomize the managed of continuity	The expense of full-sources
(inches) Color (moint) %	Redox Features	Tenders Demode
L 1/22 7/2		remarks
The second se		
L_ <u>1113</u>	-	and the second secon
		***************************************
Type: C=Concentration, D=Depletion, H	Merkeduced Mathx. CS=Covered or Coeled Send Gra	ins. "Location: PL=Pore Lining, M=Matrix.
york boli macators: (Appresitie to	all Lords, uniters otherwise noted.)	indicators for Problematic Hydric sola":
FIREOSOL (A1)	Sandy Redox (S5)	2 cm Muck (A10)
	Supped Mainx (S6)	Ked Parent Material (TF2)
Hudomen Sulfide (A4)	LUBROY MUCKY MIDERAL (P 1) (EXCEPT MERA 1)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ indicators of hydrophylic venetativo and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present
Sandy Gleved Matrix (S4)	Redox Decressions (F8)	uniess disturbed or problematic
Restrictive Layer (If present):		
Type:		
Danih (inchae)		Mustria Coli Brassant's Man No.
	Mo meta	, Zi.
YDROLOGY	no sete	
YDROLOGY Netland Hydrology Indicators:	Mo seta	_ Zi.
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one requi	Mar and a contract of the sooly)	Secondary Indicators (2 or more required)
YDROLOGY Netland Hydrology Indicators: 21/mary Indicators (minimum of one requi Surface Water (A1)	red: ofteck ell that scolv) 	
YDROLOGY Wetland Hydrology Indicators: 2/imary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2)	(red: check ell that spoly) Water-Stained Leaves (B9) (axcept MLR/ 1, 2, 4A, and 4B)	
YDROLOGY Netland Hydrology Indicators: 	red: check all that scoly) Water-Stained Leaves (B9) (except MLR/ 1, 2, 4A, and 4B) Salt Crust (B11)	Secondary Indicators (2 or more resulted) 
YDROLOGY Netland Hydrology Indicators: 2fmary Indicators (minimum of one requi Sufface Water (A1) High Water Table (A2) Seturation (A3) Water Marks (B1)	/red: check all that sooly) 	Secondary Indicators (2 or more required) Water-Skined Leaves (50) (MLRA 1, 2, 4A, and 48) Drainage Patterns (810) Dry-Season Water Table (C2)
YDROLOGY Netland Hydrology Indicators: 2/mary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Seturation (A3) Water Marks (B1) Sediment Deposits (B2)	/red: check ell that sooly) 	Secondary Indicators (2 or more required) — Water-Stained Leaves (59) (MLRA 1, 2, 4A, and 48) — Drainage Patterns (B10) — Dry-Season Water Table (C2) — Seturation Visible on Aerial Imagery (C9
YDROLOGY Netland Hydrology Indicators: 2/mary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Daposits (B2) Drift Deposits (B3)	/red: check ell thel scoly) 	Secondary Indicators (2 or more required) Water-Stained Leaves (89) (MLRA 1, 2, 4, and 48) Drainage Patterns (810) Dry-Season Water Table (C2) Seturation Visible on Aerial Imagery (C9 (C3) Geomorphic Position (D2)
YDROLOGY Netland Hydrology Indicators: 	/red: check sil lhal spoly)	Secondary Indicators (2 or more required)     A
YDROLOGY Netland Hydrology Indicators: 2/mary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Seturation (A3) Water Marks (B1) Setiment Deposits (B2) Drift Deposite (B3) Algel Mat or Crust (B4) Iron Deposits (B5)	/red: otheck eli theil spoly) 	Secondary Indicators (2 or more required)     Water-Stained Leaves (89) (NLRA 1, 2, 4A, and 48)     Drainage Patterns (810)     Dry-Season Water Table (C2)     Seturation Visible on Aerial Imagery (C8     (C3) Geomorphic Position (D2)     Shaflow Aquitard (D3)     FAC-Neutral Test (D5)
YDROLOGY Netland Hydrology Indicators: 2/imary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Daposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	/red: check ell that sooly) 	Secondary Indicators (2 or more required)     Water-Stained Leaves (89) (MLRA 1, 2, 44, and 48)     Drainage Patterns (810)     Dry-Season Water Table (C2)     Second Water Table (C2)     Geomorphic Position (D2)     Shafow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
YDROLOGY Netland Hydrology Indicators: 2/fmart Indicators infinimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery	red: check all that sooly)	Secondary Indicators (2 or more required)  A Water-Stained Leaves (59) (MLRA 1, 2, 4 A, and 45) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Seturation Visible on Aerial Imagery (C9 (C3) Geomorphic Position (D2) Shaflow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLOGY Netland Hydrology Indicators: 	/red: check all ibel sooly)	Secondary Indicators (2 or more resulted)     Water-Steined Leaves (S0) (NLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Seturation Visible on Aerial Imagery (C9     (C3)     Geomorphic Position (D2)     Shaflow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
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YDROLOGY Netland Hydrology Indicators: 2/mary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Seturation (A3) Water Marks (B1) Seturation (A3) Mater Marks (B1) Seturation (A3) Algai Mat or Crusk (B3) Into Deposits (B3) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparesby Vegetated Concave Surface Yeld Observations: Surface Water Present? Yes Water Table Present? Yes	/red: check ell that sooly)	Secondary Indicators (2 or more required)  Water-Skined Leaves (50) (NLRA 1, 2, 4A, and 48) Drainage Patterns (810) Dry-Soason Water Table (C2) Saturation Visible on Aerial Imagery (C9 (C3) Geomorphic Position (D2) Shatow Aquitard (03) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocke (D7)
YDROLOGY Netland Hydrology Indicators: 2/max Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Daposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerist Imagery Spanesty Vegelated Concave Surface Teid Observations: Surface Water Present? Yes Startable Present Startable Pr	red: check ell thel sooly)	Secondary Indicators (2 or more resulted)  Water-Stained Leaves (36) (MLRA 1, 2, 44, and 48) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Seturation Visible on Aerial Imagery (C9 GC3) Geomorphic Position (D2) Shaflow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocke (D7)  rd Hydrology Present? Yes No
YDROLOGY Netland Hydrology Indicators: 2/mary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Daposits (B2) Orit Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerisl Imagery Spensely Vegetated Concase Surface reid Observations: Surface Water Present? Yes Surface Water Present? Yes Surface Surfacer? Yes Surface Surfacer? Surface Surfacer? Surface Surfacer? Mater Table Present? Yes Surface Surfacer? Surface Water Present? Yes Surface Water Present? Yes Surface Surfacer? Surface Water Present? Yes Surfacer Surfacer? Surface Water Present? Yes Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfacer Surfac	/red: check all that soolry	Secondary Indicators (2 or more resulted)  A
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YDROLOGY Netland Hydrology Indicators: 27mart Indicators immumum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Daposits (B2) Drit Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B8) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface 7teld Observations: Surface Water Present? Yes Suface Water Present? Yes Sufaction Present? Yes	red: check all that sooly)	Secondary Indicators (2 or more resulted)  A
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Western Mountains, Valleys, and Coast -- Interim Version

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plicentOwner:		State: UNA Semoling Point: DATAK
restigator(s): Ed Sew	section, Township.	Range: NW 14 521 TTIR
indiorm (hillslope, terrace, atc.);	Local relief (concav	e ponvex none): Since (%)
ubraction (LRR):	i at	Long: Datum
Mani Init Name: Custo	1	ABAR observices
a climatic / hudronoic constituing on the site husi	and Saw their three of usans Yes	
n Veneration Calif. as Municipality	an au tres tree of year 7 ses ne	(in NO, explaint Bi Flemands.)
Vegetation Soll an thistory	significantly disturbed? Au	NO NOTINE CICLINEERICES PRESERT? Yes
or regulation	naturally problematic / (1)	needed: expain any answers in Hemarks.)
UMMARY OF FINDINGS - Attach sit	e map showing sampling poin	t locations, transects, important features, etc.
hydrophytic Vegetation Present? Yes	No	
Hydric Soit Present? Yes	No	Hand? You No
Wetland Hydrology Present? Yes	No Within a week	NO
remarks: Mary Ed. Ele.	let	
<i><i>у</i>л<i>о с с у у у с с</i></i>		
EUE IA HON - Use scientific names	of plants.	
(ree Statum (Plot size: )	Absolute Dominant Indicato % Cover Species? Status	Dominance Test worksheet:
· · · · · · · · · · · · · · · · · · ·	ALL DESCRIPTION AND ADDRESS AND ADDRESS AND ADDRESS ADDRES	That Are OBL, FACW, or FAC: ) (A)
)		Species Across All Strate: (B)
l		Prompt of Deminant Province
Service Plant One in the service state	* Total Cover	That Are OBL, FACW, or FAC:
Plot size:		
). 2		Total & Count of Automatica
² , <u> </u>		ORI exercise via
·		FACW species x 2 =
		FAC species x3 =
	= Total Cover	FACU species x 4 =
terb Stratum (Ptot size)	A In	UPL species x 5 =
1 March Jew un	gy	- Column Totals: (A) (B)
Hypern rala	m jo Mr	4
		- Prevalence index = B/A =
		Provinances Text is \$50%
		Prevalence index is <3.01
الارتىكى مەركىيى بىرىكى بىر ب		Morphological Adaptations ¹ (Provide supporting
*		data in Remarks or on a separate sheet)
		Wellend Non-Vascular Plants
0		Problematic Hydrophytic Vegetation ¹ (Explain)
1		Indicators of hydric soil and wetland hydrology must
	≈ Total Cover	- Les Areveni, Unitese costalizado of Dicoblettietto.
Voody Vine Stratum (Plot size:	)	
·		Hydrophytic
		Present? Yes No
	Total Cover	
Bare Ground in Herb Stratum		1 1
Bere Ground in Herb Stratum		

Dents	Matrix		Pad	w Festures				•	
(inches)	Color (moist)	%	Color (moist)	<u>% רבייועריים א</u>	Type	Loc	Texture	Remark	
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-forthermore .	1, 1, 1, 1, 2			-				. J	
				-		*****		-	
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·····									
Type: C=Co	centration D=Denk	tion RM=Re	duced Matrix C	S=Covered o	v Coster	Sand Gr	aine ² 1	ocation Pl zPone I ining	MaMairiy
Hydric Soll in	dicators: (Applica	ble to all LR	ts, unless othe	rwise noted	L)		Indica	ions for Problematic H	dric Solls':
Historol (	A1)		Sandu Dadou (	<b>QB</b> 1	.,				
Histin Eni	narion (A2)		Stripped Linkin	(CA)				d Garant Maindal (TE3)	
Black Lie	No (43)		Loomu Marini	(CO) Magazi (C1)	Inverters		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	na manasa, naanonge (1172) haw (Cumbinia in Decambin	
Hudimon	Sulfide (AA)		) commu Gleverd	nn marar (r' i ) Mateix /C''	(except	area ()	01	our frachant itt rattigike	1
Denietari	Beine Dark Surface	(A11)	Contract Linte	······································					
Thick Day	v Sudara (\$12)		Perfor Dark St	n (ru) Mana /EA			² Indian	tore of hurbanhutla verse	tation and
Sandy M	n Gurdeos philos Inter Edinares (C1)		Desisted Dark of	61600 (F0) Eurípes (E71)			1143.44	and burlet and a second burlet	
Sandy (2)	naný Minister (CT)		Depresed Dan	Surance (Pr)	,		wet	and nyadogy most be	present,
Participation 1	ayeu makin (34)		Reacht Lieptes	NOITS (FO)			CO H	as asarded or problem	
T	alar fit branninti								
t <b>ype</b> :		*****	-				1		-
Depth (incl	186):		+				Hydric So	il Present? Yes	No
	annale si shirefuey wa ya iya ya ya da ana ya			NO		Je.	n K		
YDROLOG	9Y			NO		) ( ) 	nk	?	
YDRQLOG Wetland Hyd	iY rology indicators:			NO		) : . 	n & 	,	
IYDROLOG Wetland Hydr	iY rology indicators: ticks (minimum of po	e required: cf	neck all that app	N 0		J		, anderv Indicators (2 or n	nore required)
IYDROLOG Wetland Hydr Primacy Indica Surface V	3Y rology Indicators: tlors (minumum of on Vater (A1)	e required: ct	reck all that eno	NO W)			- <u>Seo</u>	y underv Indicators (2 or n Water-Stained Leaves (	<u>nore required)</u> 89) (NLRA 1, 2,
IYDROLOG Wetland Hydr Primacy Indica Surface V High Wat	BY rology indicators: itors (minumum of on Vater (A1) ar Table (A2)	e required; cf	reck all that epo Water-Sta 1, 2, 4,	W) ined Leaves A, and 48)	 + (B9) (ex		- <u>Sec</u>	, anderv indicators (2 or n Water-Stained Leaves ( 4A, and 4B)	nore required) 89) (MLRA 1, 2,
YDROLOG Wetland Hydr Primacy Indica Surface V High Wat Saturation	BY rology indicators: loss (infurnum of on Vater (A1) ar Teble (A2) 1 (A3)	e required; cf	meck all that eno Water-Sta Salt Crust	W) ined Leaves A, and 48) (811)	 ; (B9) (ex	Copt MLR	- <u>See</u>	ndervindisson (2 or n Water-Stained Leaves ( 4A, and 48) Desinage Pattoms (810	<u>nore required)</u> 59) (MLRA 1, 2,
IYDROLOG Wetland Hydk Primacy Indica Surface V High Wate Seturation Water Ma	3Y rology indicators: loss (thiruman of on Vater (A1) ar Table (A2) 1 (A3) n (A3) n (A5)	e required: cf	reck all that epo Water-Sta Sat Crust Agustic In	W) ined Leaves A, and 4B) (B11) vertebrates (	; (B9) (ex	Icept MLR	- <u>see</u>	7 Water-Stained Leaves ( 4A, and 4B) Dreinage Patterna (B10) Dry-Season Water Table	nore required) 89) (MLRA 1, 2, ) 9 (C2)
IYDROLOG Wetland Hydr Primacy Indica Surface V High Watu Seturation Water Ma Sectiment	BY rology indicators: idors (mbrumum of on Vater (A1) ar Table (A2) i (A3) rts (B1) Deposits (B2)	e required: cf	reck all theil epo — Water-Sta 1, 2, 4 — Sait Crust — Aquestic in — Hydrogen	W) ined Leaves A, and 4B) (B11) vertebrates ( Sutide Odos	(B9) (ex	ccept MLR	- <u>Sec</u>	, water-Skined Leaves ( 4A, and 48) Dreinage Pattoms (810 Dry-Season Water Tabl Saturation Visible on Ae	nore requied) 69) (NLRA 1, 2, ) ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
IYDROLOG Wetland Hydr Primacy Indig Surface V High Wate Saturation Sediment Drift Deoc	Y rology indicators: itors (minumum of on yater (A1) er Teble (A2) it(A3) rks (B1) Deposits (B2) seits (B3)	e required; cf	reck all thei eoo — Water-Sta 1, 2, 4 — Sait Crust — Agustic in — Hydrogen — Oxidized	W) inted Leaves A, and 4B) (B11) vertebrates ( Suffed Odou Rhizospherei	(B13) r (C1) s along L	copt MLR		onderv Indicators (2 or n Water-Stained Leaves ( 4A, and 48) Dreinege Patterns (B10) Dry-Season Water Tabb Saturation Visible on As Geomorphic Position (D	nor <u>e requied)</u> 50) (MLRA 1, 2, ) 9 (C2) rial Imagery (C9 2)
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IYDROLOG Wettend Hyth Primacy Indice Seturation Seturation Water Ma Setiment Drift Depo Drift Depo Agei Mat Iron Demo	BY rology indicators: ioss (infrumum of on Vater (A1) ar Table (A2) 1 (A3) rks (B1) Deposits (B2) paits (B3) or Crust (B4) mits (B3)	e required; cf	Water-Sta     Water-Sta     1, 2, 4,     Sait Crust     Aquesto in     Hydrogen     Oxidized 1     Presence     Recent in	W inted Leaves A, and 4B) (B11) vertebrates ( Sulfide Odio Rhizosphere of Reduced in Reduction	(B9) (ex (B13) r (C1) s along L iron (C4)	toopt MLR	an (C3)	y water-Skined Leaves ( 4A, and 48) Dreinage Pattoms (B10 Dry-Season Water Tabi Saturation Visible on Ae Seconorphic Position (D Shaflow Aquitard (D3)	nore required) 59) (MLRA 1, 2, ) e (C2) rial Imagery (C9 2)
IYDROLOG Wettend Hyd Primacy Indica Surface V High Wate Seturation Water Ma Setiment Drift Depo Algel Mat Iron Depo Surface S	Y rology indicators: itors (minumum of on yater (A1) ar Table (A2) it(A3) rks (B1) Deposits (B2) aite (B3) or Crust (B4) sits (B5) of Crust (B4)	e required: ct	eck all thei soo Water-Sta 1, 2, 4 Sait Crust Aquetic in Hydrogen Oxidered I Presence Recent in Stimute	W) ined Leaves A, and 4B) (B11) Suffice Odo Rhizospherer of Reduction r Reduction	(B13) (B13) (C1) s along L Iron (C4) in Tifled	iving Root	s (C3)	anderv Indicators (2 or n Water-Stained Leaves ( 4A, and 48) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on As Geomorphic Position (0 Shallow Aquitant (03) FAC-Neutral Test (05)	nore required) S9) (NLRA 1, 2, ) 9 (C2) rial Imagery (C9 2)
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YDROLOG Wetland Hyd Primac India Surface V High Wat Setiment Orit Depc Agel Mat Iron Depc Surface S Inundelion	BY rology indicators: loss (orkurram of on Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) saits (B3) or Crust (B4) saits (B5) foil Cracks (B5) n Visible on Aeriel In	ie required; cf nagery (87)	Water-Sta     T, 2, 4,     Sait Crust     Aquettic in     Hydrogen     Oxidized I     Presence     Recent in     Stunted o     Other (Ex.	N O inted Leaves A, and 4B) (B11) vertebrates ( Sulfide Odou Rhizosphares of Reduction of Reduction or Reduction or Reduction or Reduction	(B9) (ex (B9) (ex (C1) s along L iron (C4) b in Tifled lants (D1 arks)	iving Root	x (C3)	, water-Steined Leaves ( 4A, and 48) Dreinage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Seconorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Frost-Heave Hummocka	nore required) 80) (MLRA 1, 2, ) e (C2) rial Imagery (C9 2) ) (LRR A) = (D7)
IYDROLOC Wettend Hyd Prinser India Sufrace V High Wet Seturation Seturation Water Ma Seturation Drift Depc Algel Met Iron Depc Sufrace S Inundation Sparsely	Y rology indicators: itors (minumum of on yater (A1) ar Table (A2) (A3) rks (B1) Deposits (B2) aits (B3) or Crust (B4) sits (B5) oil Crusks (B8) of Visible on Aerial In Vegotaled Concave	ie required; cf nagery (B7) Surface (86)		W ined Leaves A, and 4B) (B11) vertebrates ( Suifide Odou Rhizospheres of Reduction Reduction Stressed Pi Iolain in Remu	(B9) (ex (B9) (ex (B13) r (C1) s along L fron (C4) b in Tifled lants (D1 arks)	(ving Root) Soils (C8) (LRR A)		, water-Steined Leaves ( 4A. snd 48) Droinege Patterne (810) Dro-Season Water Tabi Saturation Visible on Ae Geomorphic Position (0 Shailow Aquittard (03) FAC-Neutral Test (05) Raised Ant Mounds (06 Frost-Heave Hummocks	nore required) S9) (MLRA 1, 2, ) 9 (C2) ritel Imagery (C9 2) ) (LRR A) = (D7)
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Western Mountains, Valleys, and Coast -- Interim Version

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blicaniłOwner:			State: UVA Sempling Point:
estigator(s): <u>EQ 32</u>	wall s	action, Township, Ra	nge: NW 74 SE 52/73/R
ndform (hillslope, terrace, etc.):	L	ocal relief (concave,	convex, none): Slope (%):
bregion (LRR):	Lat		Long: Detum:
# Map Unit Name: LUS	<i>jx</i> (		NWI classification:
Climatic / hydrologic conditions on the sit	te typical for this time of year	? Yes No _	(If no, explain in Remarks.)
Vegetation Soil, or Hydr	ology significantly di	slurbød? Are '	"Normal Circumstances" present? Yes No
• Vegetation, Solf, or Hydr	ology naturally probi	iematic? (if ne	eeded. explain any answers in Remarks.)
JMMARY OF FINDINGS - Attac	h site map showing s	ampling point k	ocations, transects, important features, etc.
lydrophytic Vegetation Present? Y	NONO	In the Constant	
fydric Soil Present? Y	No No	within a Wellau	Notes No Var
Velland Hydrology Present? Y	'es No		
Moved &	54 let		
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	-	1	
USE IATION - USE SCIENTINC NAI	mes of plants.	Onmittent Indianter	Demission Test underband
(ee Statum (Plot size:)	% Cover	Species? Status	Number of Dominant Species
· ••••••••••••••••••••••••••••••••••••			That Are OBL, FACW, or FAC: (A)
	-		Total Number of Dominant
			Species Across All Strata: (B)
·			Percent of Dominant Species
aplingShrub Stratum (Plot size:		Total Cover	That Are OBL, FACW. or FAC: (A/B)
* And * * * * * * * * * * * * * * * * * * *			Prevalence Index worksheet:
·			Total % Cover of Multiply by:
k			OBL species x1=
F			FACW species x 2 =
i			FAC species x3 =
terb Stratum (Plot size )		Total Cover	
Cirsin on	n 20	FAL	Column Totaler (A)
Arran ~	30.30	FA	(B)
			Prevalence Index = B/A =
•			Hydrophytic Vegetation Indicators:
			Commance Test is >50%
			Manhalaniani Adaptetiana ¹ (Results supra du-
*			data in Remarks or on a separate shast)
			Watland Non-Vascular Plants
			Problematic Hydrophytic Vegetation ¹ (Explain)
0	and a second descent of the second descent of the second descent descent		Indicators of hydric soil and wetland hydrology must
0			LINE MERSON IN, MERSON LINES OF STREETWARTS AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET AND A STREET
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01 1 Voody,Yine Siratum (Piot size:	*	Total Cover	
0	······································	Total Cover	Hydrophytic Veretetion
0	*****	Total Cover	Hydrophytic Vegetation Present? Yes No
0 1 /coody Yine Stratum (Piot size: 	······································	Total Cover	Hydrophytic Vegetation Present? Yes No

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Depin Matrix		Redox Features		-
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14 1040)	<u></u>		5-	
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Type: C=Conceptration D=D	aniation RMsRa	duced Matrix CSsCovered or Costed St	and Graine	1 ocalism Ol «Dorne Linima Maldator
hydric Soil indicators: (Appl	icable to all I Ri	Rs. unless otherwise noted 1	logik	retors for Problematic Matric Solis ²
Histori (A1)		Cando Daday (CE)	191419	navera ver frukreinene riyare @une .
FINIOSOL (A1)		Sandy Heddox (S5)		2 cm Muck (A10)
mistic Epipedon (A2)		Stripped Matrix (S6)		Red Parent Material (TF2)
Black Histic (A3)		Loamy Mucky Mineral (F1) (except NL	.RA 1)	Other (Explain in Remarks)
		Loamy Gleyed Matrix (F2)		
Depleted Below Dark Surfa	ace (A11)	Depleted Matrix (F3)		
Thick Dark Surface (A12)		Redox Dark Surface (F6)	² Ind ²	cators of hydrophytic vacatation and
Sandy Mucky Minarat (S1)		Depleted Dark Surface (F7)		etiand by more the present
Sandy Glaved Matrix (S4)		Radov Depressions (FR)		nine distubed or problematic
Pastrictiva Lawar (if cresent)				weeks ussing bey of problements.
Town	•			
type:		-	1	_
Depth (inches):		-	Hydric	Soil Present? Yes No
		No int	e to	
YDROLOGY		No int		
YDROLOGY Netland Hydrology Indicator	<b>*:</b>	ro int	to	
YDROLOGY Metland Hydrology Indicator Primary Indicators (minimum of	s: fone nequired; cf	Ma inda	t.	econdery indicators (2 or more resulted)
YDROLOGY Metland Hydrology Indicator 2rimary Indicators (minumum of Surface Water (A1)	s: Fone received: cl	neck eli Unat Booky) 		econdery Indicators (2 or more resulted) Water-Steined Leaves (99) (NLRA 1, 2,
YDROLOGY Netland Hydrology Indicator Primacy Indicators Immunum of Surface Water (A1) High Water Table (A2)	s: fone neceired; cl			scondery Indicators (2 or more resulted) Water-Stained Leaves (59) (MLRA 1, 2, 4A. and 48)
YDROLOGY Metland Hydrology Indicator Trimary Indicators (minimum of Surface Water (A1) — High Water Table (A2) Saturation (A3)	s: fone required; cl	Deck all that apply) Water-Stained Leaves (B9) (axcer 1, 2, 4A, and 4B) Sate Court (B1)		econdery Indicators (2 or more resulted) Water-Steined Leaves (S9) (MLRA 1, 2, 44, and 48) Designer Pattern (R11)
YDROLOGY Metland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3)	s: fone required: cl	Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Sati Crust (B11)		scondary Indicators (2 or more resuried) Water-Steined Leaves (69) (MLRA 1, 2, 4A, and 48) Dreinege Pattorns (610)
YDROLOGY Netland Hydrology Indicator Primary Indicators iminum of Surface Water (A1) High Water Table (A2) Seturation (A3) Water Marks (B1)	s: fone nequired; cf		pr MLRA	econdery Indicators (2 or more resulted) Water-Stained Leaves (99) (MLRA 1, 2, 4A, and 4B) Dreinage Patterns (810) Dry-Seeson Water Table (C2)
YDROLOGY Metland Hydrology Indicator Trimary Indicators (minumum of Surface Water (A1) High Water Table (A2) Seburation (A3) Water Marks (B1) Sediment Deposits (B2)	s; fone received; cl			econdery Indicators (2 or more resurced) Water-Stained Leaves (30) (MLRA 1, 2, 4A, and 48) Drainage Pattorns (810) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C9)
YDROLOGY Metland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	s: Fone required: cf	Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B)     Sait Crust (B11)     Aquetic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizzephrees along Livin	pt MLRA	econdery Indicators (2 or more recuired) , Water-Stained Leaves (69) (MLRA 1, 2, 4A, and 48) , Drainage Patterns (810) , Dry-Seeson Water Table (C2) , Saturation Visible on Aerial Imagery (C9) , Geomorphic Position (02)
YDROLOGY Metland Hydrology Indicator Primary Indicators iminimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mar or Crust (B4)	s: fone required; cf	Lock all that apply)     Water-Stained Leaves (B9) (excer     1, 2, 4A, and 4B)     Sait Crust (B11)     Aquetic Invertebrates (B13)     Hydrogen Sulfde Odor (C1) Livi     Orddized Rhizospheres along Livi     Presence of Reduced from (C4)	pt MLRA	econdery Indicators (2 or more resulted) Water-Stained Leaves (99) (MLRA 1, 2, 4A, and 4B) Drainage Pattorns (810) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquittard (D3)
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Western Mountains, Valleys, and Coast -- Interim Version

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oject/site:			City/County	Sampling Date: C
pplicentrowner:	<u>&lt;</u>			State: Corresponding Point:
vestigator(s): <u>E.C.</u>	Jewan		Section, Township, F	tange: NW 94 DE > 2/ 13/
andionm (hillslope, terrace, etc.): _			Local relief (concave	s, convex, none): Slope (%):
ubregion (LRR):	2	Lat:		Long: Deturn;
oil Map Unit Name:	CUSTIN			NWI classification:
re climatic / hydrofogic conditions	on the site typical for th	is time of ye	er? Yes No	(If no, explain in Remarks.)
re Vegetation, Soil	, or Hydrology	significantly	disturbed? An	e Normal Circumstances* present? Yes No
e Vegetation Soil	, or Hydrology	naturally pro	blematic? (If	needed. explain any answers in Remarks.)
UMMARY OF FINDINGS -	- Attach site map	showing	sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes /	No	is the Sample	nd Area
Hydric oon Present? Wailand Hurtralony Dresont?	Yes !	No	<ul> <li>within a Weti</li> </ul>	and? Yas No
Remarks		40		
Marca	A File let			
EGETATION - Use scient	ific names of plai	nts.		
		Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Statum (Plot size:	)	% Cover	Species? Status	Number of Dominant Species
l	******	-	*****	That Are OBL, FACW, or FAC: (A)
£	······································			Total Number of Dominant
·		***		Species Across All Strate: (B)
			* Total Cover	Percent of Dominant Species
SeptimoShrub Stratum (Plot size:	)			THE ARE OBL, FACILY, OF FAC: (A/B)
1.				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
4		-		Cest species x1 =
•		-		EAC marine (C) +2+ (87)
V			a Total Cover	FACUERADION 3C VAN 120
terb Stretum (Plot size	)	4.43	- Note - Cont	UPL species x 5 *
1. Agrophan	ring			Column Totals: 90 (A) 30 (B)
2 Pactalis	flourty	- 30	Figle	23
Jugxac	~ ething!			Prevalence Index = B/A =
l				Hydrophytic Vegetation Indicators:
). 				Prevolance Index is 43.01
• ••••••••••••••••••••••••••••••••••••				Moraholonical Adaptations" (Provide consultan
*				data in Remarks or on a separate sheet)
•••••••••••••••••••••••••••••••••••••••		•• •••••••••••		Watiend Non-Vascular Plants
).	······································			Problematic Hydrophytic Vegetation ¹ (Explain)
) 10.				Indicators of hydric soil and wetland hydrology must
)  0:			- Tatal Cause	Se present, Unless disturbed of problematic,
). (0				
9 10 11 Noody Yine Stratum (Pict size:	)		- TOBE COVER	
k 11 <u>Noody Yine Stratum</u> (Piot size:	)		~ 10001 COVER	Hydrophytic
9 10 11 <u>Noody Yine Stratum</u> (Piot size: 1	) 			Hydrophytic Vegetation Present? Yes No
8			Total Cover	Hydrophytic Vegetition Present? Yes No

Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features ist) % Type' Loc' Denti Matrix Color (moist) (inches) Color (moist) Texture Remarks Frit 4 600mm 10/23/3 5.43 14 ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Send Greins. Location: PL=Pore Lining, M=Metrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solis': ____ Sandy Redox (S5) ____ 2 cm Muck (A10) Histosol (A1) ____ Red Parent Material (TF2) ____ Stripped Matrix (S6) Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) ...... Other (Explain in Remarks) Losmy Gleyed Matrix (F2) ____ Depieted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Sandy Mucky Minaral (S1) Depleted Dark Surface (F7) wetland hydrology must be present. ____ Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (If present): Type: Depth (inches): Hydric Soil Present? Yes No. Remarks. no iduto HYDROLOGY Wetland Hydrology Indicators: Primary indicators iminumum of one required; check all that apply) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (except MLRA Surface Water (A1) Water-Stained Leaves (89) (MLRA 1, 2, 1, 2, 4A, and 4B) 4A, and 48) Saturation (A3) ____ Salt Crust (B11) Drainage Patterns (B10) ____ Water Marks (B1) ____ Aquatic Invertebrates (B13) ____ Dry-Season Water Table (C2) Sediment Deposits (B2) ...... Hydrogen Sulfide Odor (C1) ____ Saturation Visible on Aerial Imagery (C9) _ Oxidized Rhizospheres along Living Roots (C3) Drift Deposits (B3) Geomorphic Position (02) Algel Met or Crust (B4) Presence of Reduced Iron (C4) Shallow Aguitard (D3) fron Deposits (85) Recent iron Reduction in Tilled Soils (C8) ____ FAC-Neutral Test (D5) ____ Stunted or Streased Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) ____ Surface Soil Cracks (68) Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ____ Frost-Heave Hummocks (D7) -----Sparsely Vegetated Concave Surface (86) Field Observations: Surface Water Present? Bepth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Depth (inches): Yes No Wetland Hydrology Present? Yes ...

Cept (Includes capitaly finge)
 Describe Recorded Data (stream gauge, monitoring weil, aerial photos, previous inspections), if available:

Remarks.

SOIL

No whente

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Interim Version

No

US Army Corps of Engineers

Western Mountains, Valleys, and Coast -- Interim Version



# COMMUNITY DEVELOPMENT DEPARTMENT 80 Columbia Avenue • Marysville, WA 98270 (360) 651-5100 • (360) 651-5099 FAX

July 10, 2018

Merle Ash Land Technologies, Inc. 18820 3rd Avenue NE Arlington, WA 98223

Re: Sather – Critical Areas Confirmation CAR 18001

Dear Merle,

The Community Development Department has reviewed the Critical Areas Report (CAR), dated September 19, 2017 and the CAR Addendum, dated June 18, 2018, both prepared by Sewall Wetland Consulting, Inc. Additionally, Community Development staff have visited the site on two separate occasions in order to observe existing conditions.

Based on the information submitted and on file with the City, and after conducting field visits the Community Development Department agrees that there are no regulated critical areas located on the Sather Property, located on the southwest corner of 172nd Street NE (SR 531) and 23rd Avenue NE and identified as Assessor's Parcel Number (APN) 31052900200900.

There is an existing agricultural ditch located on the western edge of the parcel. Pursuant to Marysville Municipal Code (MMC) 22E.010.190(2)(a) activities involving artificially created habitat, including drainage ditches are exempt from the provisions of MMC Chapter 22E.010 *Critical Areas Management*, provided they are conducted using best management practices. However, the provisions of the MMC do not exempt an applicant from complying with State and Federal regulations related to agricultural ditches.

The City has requested both Washington State Department of Ecology and The United States Army Corps of Engineers to review the application materials and provide comments related to the agricultural ditch, however, the City has not received a response to date. Therefore, prior to issuing any land disturbing activity permits related to the agricultural ditch, all State and Federal permits shall be obtained, as necessary.

If you have any questions regarding this critical areas confirmation, please contact me at <u>cholland@marysvillewa.gov</u>, or by phone at 360-363-8207.

Sincerely,

111

Chris Holland Planning Manager

cc: Dave Koenig, CD Director



# COMMUNITY DEVELOPMENT

80 Columbia Avenue • Marysville, WA 98270 (360) 363-8100 • (360) 651-5099 FAX

July 17, 2019

Merle Ash 18820 3rd Ave NE Arlington, WA 98223

RE: CAR 19-008 "Ricardi" Wetland determination – 4.55 acres site located at 1930 172nd St NE (AF# 31052900201200)

Dear Merle,

Upon review of the site and the report prepared by *Sewall Wetland Consulting*, dated June 28, 2019 it was determined that due to a lack of hydrology there are no wetlands present on the 4.55 acre site. The City concurs with the *Sewall Wetland Consulting*'s report dated June 28, 2019.

Any ditches with a hydrological connection to the West Fork of Quilceda Creek may be considered Waters of the United States. Alteration of filling of these ditches will require either a USACE permit or a written determination from the USACE that the ditches are not jurisdictional. Prior to alteration of these ditches either a corp permit or jurisdictional determination will need to be submitted to the City.

If you have any questions, I can be reached Monday through Friday, 7:00 am to 3:30 pm at (360) 363-8206 or by e-mail at <u>cdungan@marysvillewa.gov</u>.

Sincerely,

Cheryl Dungan Senior Planner



# COMMUNITY DEVELOPMENT DEPARTMENT

80 Columbia Avenue • Marysville, WA 98270 (360) 363-8100 • (360) 651-5099 FAX

December 7, 2021

Ed Sewall Sewall Wetland Consulting, Inc. PO Box 880 Fall City, WA 98024 and Harvey

Re: Counsellor Critical Areas Confirmation CAR 21012

Dear Ed,

After conducting a site visit on Friday, December 3, 2021, and reviewing the Critical Areas Report (CAR), prepared by Sewall Wetland Consulting, Inc., dated September 7, 2021, the Community Development Department confirms that there are no regulated critical areas located at site addresses 2008 & 2104 172nd Street NE (SR 531), also identified as Assessor's Parcel Numbers (APNs) 31052900201100, 31052900201900, 31052900202600, 31052900200800.

Attached are comments from Doug Gresham, Wetland Specialist, Washington State Department of Ecology, agreeing with the CAR that there are no critical areas located on the above referenced parcels.

Critical Areas Confirmations are valid for a period of five (5) years from the date of confirmation. This Critical Areas Confirmation shall expire on December 7, 2026, unless the parcels are developed on or before the expiration date. If you have any questions regarding the City's review or confirmation, please contact me at 360.363.8207, or by e-mail at cholland@marysvillewa.gov.

Sincerely,

# Chris Holland

Chris Holland Planning Manager

cc: Haylie Miller, CD Director

# **Chris Holland**

From:	Gresham, Doug (ECY) <dgre461@ecy.wa.gov></dgre461@ecy.wa.gov>
Sent:	Friday, December 3, 2021 8:29 AM
То:	Chris Holland
Subject:	[External!] Councellor Critical Areas Review (CAR21012)

# External Email Warning! Use caution before clicking links or opening attachments.

Chris,

I reviewed the critical area report and agree with the findings.

Doug Gresham, Wetland Specialist Washington State Department of Ecology PO Box 330316 Shoreline, WA 98133-9716 Office: (206) 594-0076 Cell: (425) 429-1846 Email: <u>Doug.Gresham@ecy.wa.gov</u>



## We have moved!

Starting May 26, Ecology's Northwest Regional Office has moved to Shoreline:

- Mailing address: PO Box 330316, Shoreline, WA 98133-9716
- My new office phone #: 206-594-0076
- 24-hour reception line: 206-594-0000



February 18, 2022

Ed Sewall/Sewall Wetland Consulting PO Box 880 Fall City, WA 98024

MARYSVILLE COMMUNITY DEVELOPMENT Re.: Schloredt Critical Areas Determination (CAR22-001) 2124 172nd St. NE

Dear Mr. Sewall,

Based on consultation with the Department of Ecology, and review of the *Critical Areas Report* prepared by Sewall Wetland Consulting dated June 28, 2019, and review of other documents and resources, the City *concurs* with the findings of the report.

Please feel free to contact me at 360.363.8232 or <u>kbird@marysvillewa.gov</u> if you have any questions.

Sincerely,

Kathryn Bird

Kathryn Bird Associate Planner

Cc: Chris Holland, Planning Manager

(360) 363-8100

Community Development 80 Columbia Avenue Marysville, WA 98270





# **Regulatory Program**

#### INTERIM APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in the Interim Approved Jurisdictional Determination Form User Manual.

#### SECTION I: BACKGROUND INFORMATION

A. COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (AJD): November 19,2019

B. ORM NUMBER IN APPROPRIATE FORMAT (e.g., HQ-2015-00001-SMJ): NWS-2019-857 C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State:Washington County/parish/borough: Snohomish

City: Marysville

Center coordinates of site (lat/long in degree decimal format): Lat. 48.15191667, Long. -122.20055556.

Map(s)/diagram(s) of review area (including map identifying single point of entry (SPOE) watershed and/or potential jurisdictional areas where applicable) is/are: 🛛 attached 🔲 in report/map titled

Other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different jurisdictional determination (JD) form. List JD form ID numbers (e.g., HQ-2015-00001-SMJ-1):

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office (Desk) Determination Only. Date: 31 October 2019.

Office (Desk) and Field Determination. Office/Desk Dates:

Field Date(s):

# SECTION II: DATA SOURCES

Check all that were used to aid in the determination and attach data/maps to this AJD form and/or references/citations in the administrative record, as appropriate.

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant. Title/Date: Critical Areas Report (dated 9 July 2018), Site Maps (dated 17 September 2019).

Data sheets prepared/submitted by or on behalf of the applicant/consultant.

Data sheets/delineation report are sufficient for purposes of AJD form. Title/Date: Critical Areas Report, Hydrology Monitoring Data, Wetland Determination Data Forms, Photographs, all dated 9 July 2018.

Data sheets/delineation report are not sufficient for purposes of AJD form. Summarize rationale and include information on revised data sheets/delineation report that this AJD form has relied upon: Revised Title/Date:

Data sheets prepared by the Corps. Title/Date:

Corps navigable waters study. Title/Date:

CorpsMap ORM map layers. Title/Date:

USGS Hydrologic Atlas. Title/Date:

USGS, NHD, or WBD data/maps. Title/Date:

USGS 8, 10 and/or 12 digit HUC maps. HUC number:

USGS maps. Scale & quad name and date: Mount Vernon, WA 1911 (HTMC 1920 ed.) Scale 1:125000.

USDA NRCS Soil Survey. Citation:

USFWS National Wetlands Inventory maps. Citation:

State/Local wetland inventory maps. Citation:

FEMA/FIRM maps. Citation:

Photographs: 🛛 Aerial. Citation: Google Earth Aerial Imagery 1990-2019. or 🗌 Other. Citation:

LiDAR data/maps. Citation:

Previous JDs. File no. and date of JD letter:

Applicable/supporting case law:

Applicable/supporting scientific literature:

Other information (please specify):

#### SECTION III: SUMMARY OF FINDINGS

Complete ORM "Aquatic Resource Upload Sheet" or Export and Print the Aquatic Resource Screen from ORM for All Waters and Features, Regardless of Jurisdictional Status – Required

#### A. RIVERS AND HARBORS ACT (RHA) SECTION 10 DETERMINATION OF JURISDICTION:

" "navigable waters of the U.S." within RHA jurisdiction (as defined by 33 CFR part 329) in the review area.

#### Complete Table 1 - Required

*NOTE:* If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Section 10 navigable waters list, DO NOT USE THIS FORM TO MAKE THE DETERMINATION. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Section 10 RHA navigability determination.

В.	CLEAN WATER ACT (CWA) SECTION 404 DETERMINATION OF JURISDICTION: "waters of the U.S." within
CM	/A jurisdiction (as defined by 33 CFR part 328.3) in the review area. <u>Check all that apply.</u>
	(a)(1): All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (Traditional Navigable
	Waters (TNWs))
	Complete Table 1 - Required
	This AJD includes a case-specific (a)(1) TNW (Section 404 navigable-in-fact) determination on a water that
	has not previously been designated as such. Documentation required for this case-specific (a)(1) TNW
_	determination is attached.
	(a)(2): All interstate waters, including interstate wetlands.
	• Complete Table 2 - Required
	Complete Table 3 - Required
	(a)(4): All impoundments of waters otherwise identified as waters of the U.S. under 33 CFR part 328.3.
	Complete Table 4 - Required
	(a)(5): All tributaries, as defined in 33 CFR part 328.3, of waters identified in paragraphs (a)(1)-(a)(3) of 33 CFR
	part 328.3.
_	• Complete Table 5 - Required
	(a)(b): All waters adjacent to a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3, including wetlands, pends, lakes, exhows, impoundments, and similar waters.
	Complete Table 6 - Required
	Bordering/Contiguous.
	Neighboring:
	(c)(2)(i): All waters located within 100 feet of the ordinary high water mark (OHWM) of a water identified in
	paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3.
	(c)(2)(II): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(5) of 33 CER part 328 3 and not more than 1 500 feet of the OHW/M of such water
	(c)(2)(iii): All waters located within 1.500 feet of the high tide line of a water identified in paragraphs (a)(1) or
	(a)(3) of 33 CFR part 328.3, and all waters within 1,500 feet of the OHWM of the Great Lakes.
	(a)(7): All waters identified in 33 CFR 328.3(a)(7)(i)-(v) where they are determined, on a case-specific basis, to
	have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
	<ul> <li>Complete Table 7 for the significant nexus determination. Attach a map delineating the SPOE</li> <li>watershed boundary with (a)(7) waters identified in the similarly situated englysis.</li> </ul>
	$\square$ Includes water(s) that are deographically and physically adjacent per (a)(6), but are being used for established
	normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent
	and require a case-specific significant nexus determination.
	(a)(8): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(3) of 33
	CFR part 328.3 not covered by (c)(2)(ii) above and all waters located within 4,000 feet of the high tide line or $O(1)/(4)$ (c)(2) of 22 OFR part 200 2 where they are determined on a
	On which a water identified in paragraphs (a)(1)-(a)(3) of 33 GFR part 328.3 where they are determined on a case specific basis to have a significant part is a water identified in paragraphs (a)(1) (a)(3) of 33 GFR part
	328.3.
	Complete Table 8 for the significant nexus determination. Attach a map delineating the SPOE
	watershed boundary with (a)(8) waters identified in the similarly situated analysis Required

Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

#### C. NON-WATERS OF THE U.S. FINDINGS:

# Check all that apply.

The review area is comprised entirely of dry land.

Potential-(a)(7) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

• Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(7) waters identified in the similarly situated analysis. - Required

Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

Potential-(a)(8) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

• Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(8) waters identified in the similarly situated analysis. - Required

Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

# Excluded Waters (Non-Waters of U.S.), even where they otherwise meet the terms of paragraphs (a)(4)-(a)(8):

Complete Table 10 - Required

(b)(1): Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA.

(b)(2): Prior converted cropland.

(b)(3)(ii): Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

- (b)(3)(iii): Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (a)(1)-(a)(3).
- (b)(4)(i): Artificially irrigated areas that would revert to dry land should application of water to that area cease.

(b)(4)(ii): Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds,

- irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds.
- (b)(4)(iii): Artificial reflecting pools or swimming pools created in dry land.¹
- (b)(4)(iv): Small ornamental waters created in dry land.¹
- (b)(4)(v): Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water.

(b)(4)(vi): Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways.¹
 (b)(4)(vii): Puddles.¹

(b)(5): Groundwater, including groundwater drained through subsurface drainage systems.¹

(b)(6): Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.¹

(b)(7): Wastewater recycling structures created in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

Other non-jurisdictional waters/features within review area that do not meet the definitions in 33 CFR 328.3 of (a)(1)-(a)(8) waters and are not excluded waters identified in (b)(1)-(b)(7).

#### • Complete Table 11 - Required.

#### D. ADDITIONAL COMMENTS TO SUPPORT AJD:

¹ In many cases these excluded features will not be specifically identified on the AJD form, unless specifically requested. Corps Districts may, in case-by-case instances, choose to identify some or all of these features within the review area.

#### Jurisdictional Waters of the U.S.

Default field entry is "N/A". Delete "N/A" and fill out all fields in the table where applicable for waters/features present in the review area.

## Table 1. (a)(1) Traditional Navigable Waters

(a)(1) Waters Name	(a)(1) Criteria	Rationale to Support (a)(1) Designation Include High Tide Line or Ordinary High Water Mark indicators, when applicable.
N/A	Choose an item.	N/A

#### Table 2. (a)(2) Interstate Waters

(a)(2) Waters Name	Rationale to Support (a)(2) Designation
N/A	N/A

#### Table 3. (a)(3) Territorial Seas

(a)(3) Waters Name	Rationale to Support (a)(3) Designation
N/A	N/A

## Table 4. (a)(4) Impoundments

(a)(4) Waters Name	Rationale to Support (a)(4) Designation
N/A	N/A
N/A	N/A

# Table 5. (a)(5)Tributaries

(a)(5) Waters Name	Flow Regime	(a)(1)-(a)(3) Water Name to which this (a)(5) Tributary Flows	Tributary Breaks	Rationale for (a)(5) Designation and Additional Discussion. Identify flowpath to (a)(1)-(a)(3) water or attach map identifying the flowpath; explain any breaks or flow through excluded/non-jurisdictional features, etc.
N/A	Choose an item.	N/A	Choose an item.	N/A
N/A	Choose an item.	N/A	Choose an item.	N/A
N/A	Choose an item.	N/A	Choose an item.	N/A
N/A	Choose an item.	N/A	Choose an item.	N/A

# Table 6. (a)(6) Adjacent Waters

(a)(6) Waters Name	(a)(1)-(a)(5) Water Name to which this Water is Adjacent	Rationale for (a)(6) Designation and Additional Discussion. Identify the type of water and how the limits of jurisdiction were established (e.g., wetland, 87 Manual/Regional Supplement); explain how the 100-year floodplain and/or the distance threshold was determined; whether this water extends beyond a threshold; explain if the water is part of a mosaic, etc.
N/A	N/A	N/A

# Table 7. (a)(7) Waters

SPOE Name	(a)(7) Waters Name	(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus	Significant Nexus Determination Identify SPOE watershed; discuss whether any similarly situated waters were present and aggregated for SND; discuss data, provide analysis, and summarize how the waters have more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

# Table 8. (a)(8) Waters

SPOE Name	(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus	Significant Nexus Determination Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to subject water and aggregated for SND; discuss data, provide analysis, and then summarize how the waters have more than speculative or insubstantial effect the on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

## **Non-Jurisdictional Waters**

Default field entry is "N/A". Delete "N/A" and fill out all fields in the table where applicable for waters/features present in the review area.

#### Table 9. Non-Waters/No Significant Nexus

SPOE Name	Non-(a)(7)/(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water DOES NOT have a Significant Nexus	Basis for Determination that the Functions DO NOT Contribute Significantly to the Chemical, Physical, or Biological Integrity of the $(a)(1)$ - $(a)(3)$ Water. Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to the subject water; discuss data, provide analysis, and summarize how the waters did not have more than a speculative or insubstantial effect on the physical, chemical, or biological integrity of the $(a)(1)$ - $(a)(3)$ water.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

# Table 10. Non-Waters/Excluded Waters and Features

Paragraph (b) Excluded Feature/Water Name	Rationale for Paragraph (b) Excluded Feature/Water and Additional Discussion.
Drainage Ditch along	The drainage ditch has ephemeral flow. Photographs provided by the applicant depict vegetation growing into
west side of Parcel	the ditch, suggesting that water is not present for extended periods of time. Based on a review of Historic
#31052900200900 and	USGS Topography Maps dating back to 1911, there is no evidence of a tributary or other water feature being
south side of Parcel	present at the project site historically. The on-site ditch does not abut wetlands. The ditch appears to have
#31052900202400	been constructed for agricultural purpopses.

# Table 11. Non-Waters/Other

Other Non-Waters of U.S. Feature/Water Name	Rationale for Non-Waters of U.S. Feature/Water and Additional Discussion.
N/A	N/A



**Regulatory Branch** 

April 13, 2021

Joel Hylback Sather B, LLC 18820 3rd Avenue Northeast Arlington, Washington 98223

> Reference: NWS-2021-151 Sather B, LLC (AJD Request)

Dear Mr. Hylback:

On April 12, 2021, we conducted a desk review of your Critical Areas Report dated July 9, 2018, for the property at Parcels 310529000201200, 310529000201300, and 310529000201401 at Marysville, Washington in response to your request for verification of the jurisdictional limits of waters of the U.S. in the review area as shown on the enclosed drawings dated January 8, 2021. The U.S. Army Corps of Engineers has determined that the ditch system depicted on the project drawings is not a water of the U.S. because it is an excluded non-water of the U.S. per 33 CFR Part 328.3 (b). As such, work that would occur within this area does not require Department of the Army authorization under Section 404 of the Clean Water Act. This determination applies only to the review area. Other waters and wetlands that may occur on this property outside the review area are not the subject of this determination.

Other state and local regulations may still apply to the ditch system. For example, the Washington State Department of Ecology (Ecology) may regulate the ditch system. For information on how to obtain State approval for your project, you should contact Ecology's Federal Permit Coordinator at ecyrefedpermits@ecy.wa.gov or at (360) 407-6068. Information regarding State permitting requirements can also be found at the following website: https://ecology.wa.gov/Water-Shorelines/Wetlands/Regulations. We are sending a copy of this letter to Ecology and to the Environmental Protection Agency's Aquatic Resources Unit.

This approved jurisdictional determination is valid for a period of five years from the date of this letter unless new information warrants revisions of the determination. A copy of this jurisdictional determination, dated April 12, 2021, is enclosed and can be found on our website at www.nws.usace.army.mil select "Regulatory Branch, Permit Information" and then "Jurisdictional Determinations". If you object to this determination, you may request an administrative appeal under our regulations (33 Code of Federal Regulations, Part 331) as

described in the enclosed Notification of Administrative Appeal Options and Process and Request for Appeal form.

A copy of this letter with drawings will be furnished to Mr. Ed Sewall at esewall@sewallwc.com. If you have any questions, please contact Ms. Amanda Nadjkovic at amanda.n.nadjkovic@usace.army.mil or at (206) 316-3156.

Sincerely,

Imenda (adj)

Amanda Nadjkovic, Project Manager Regulatory Branch

Enclosures



# I. ADMINISTRATIVE INFORMATION

Completion Date of Approved Jurisdictional Determination (AJD): 4/12/2021 ORM Number: NWS-2021-151

Associated JDs: NWS-2019-857; AJD dated 19 November 2019 for ditch segment along the western boundary of Parcel #31052900200900 and southern boundary of Parcel #31052900202400

Review Area Location¹: State/Territory: Washington City: Marysville County/Parish/Borough: Snohomish Center Coordinates of Review Area: Latitude 48.15191667 Longitude -122.20055556

# **II. FINDINGS**

- **A. Summary:** Check all that apply. At least one box from the following list MUST be selected. Complete the corresponding sections/tables and summarize data sources.
  - □ The review area is comprised entirely of dry land (i.e., there are no waters or water features, including wetlands, of any kind in the entire review area). Rationale: N/A or describe rationale.
  - □ There are "navigable waters of the United States" within Rivers and Harbors Act jurisdiction within the review area (complete table in Section II.B).
  - □ There are "waters of the United States" within Clean Water Act jurisdiction within the review area (complete appropriate tables in Section II.C).
  - There are waters or water features excluded from Clean Water Act jurisdiction within the review area (complete table in Section II.D).

#### B. Rivers and Harbors Act of 1899 Section 10 (§ 10)²

§ 10 Name	§ 10 Size	;	§ 10 Criteria	Rationale for § 10 Determination
N/A.	N/A.	N/A	N/A.	N/A.

# C. Clean Water Act Section 404

Territorial Seas and Traditional Navigable Waters ((a)(1) waters): ³						
(a)(1) Name	(a)(1) Size		(a)(1) Criteria	Rationale for (a)(1) Determination		
N/A.	N/A.	N/A.	N/A.	N/A.		

Tributaries ((a)(2) waters):						
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination		
N/A.	N/A.	N/A.	N/A.	N/A.		

Lakes and ponds, and impoundments of jurisdictional waters ((a)(3) waters):						
(a)(3) Name	(a)(3) Size		(a)(3) Criteria	Rationale for (a)(3) Determination		
N/A.	N/A.	N/A.	N/A.	N/A.		

Adjacent wetlands ((a)(4) waters):						
(a)(4) Name	(a)(4) Size		(a)(4) Criteria	Rationale for (a)(4) Determination		
N/A.	N/A.	N/A.	N/A.	N/A.		

¹ Map(s)/figure(s) are attached to the AJD provided to the requestor.

² If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.

³ A stand-alone TNW determination is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established. A stand-alone TNW determination should be completed following applicable guidance and should NOT be documented on the AJD Form.



# D. Excluded Waters or Features

Excluded waters (	(b)(1) – (b	)(12)):4		
Exclusion Name	Exclusion	n Size	Exclusion ⁵	Rationale for Exclusion Determination
Ditch System	3,582	linear	(b)(10)	The subject ditch system was constructed to
		feet	Stormwater	convey stormwater runoff. The subject ditch
			control feature	system is not a naturally occurring surface water
			constructed or	channel and was not constructed in a tributary,
			excavated in	does not relocate a tributary, and was not
			upland or in a	constructed in an adjacent wetland. The subject
			non-jurisdictional	ditch system does not meet the conditions of
			water to convey,	paragraph (a)(2). See Section III.C. for additional
			treat, infiltrate, or	details.
			store stormwater	
			runoff.	

# **III. SUPPORTING INFORMATION**

A. Select/enter all resources that were used to aid in this determination and attach data/maps to this document and/or references/citations in the administrative record, as appropriate.

Information submitted by, or on behalf of, the applicant/consultant: Parcels #310529002001300 & 1401 Critical Area Report dated 9 July 2018; Lakewood Sewer Main Extension JD Application dated

# 8 January 2021

This information is sufficient for purposes of this AJD. Rationale: N/A

Data sheets prepared by the Corps: Title(s) and/or date(s).

Photographs: Aerial: Google Earth Aerial Imagery, accessed April 2021; Historic Aerial Imagery, accessed April 2021 via NETRonline

- $\Box$  Corps site visit(s) conducted on: Date(s).
- Previous Jurisdictional Determinations (AJDs or PJDs): ORM Number(s) and date(s).
- Antecedent Precipitation Tool: *provide detailed discussion in Section III.B*.
- ☑ USDA NRCS Soil Survey: USDA-NRCS Web Soil Survey for subject property accessed April 2021
- USFWS NWI maps: NWI Map for the subject property accessed April 2021

☑ USGS topographic maps: Mount Vernon, WA dated 1911; Marysville, WA dated 1941, 1943; Arlington West, WA dated 1956, 2011, 2017, 2020; Victoria, WA dated 1957; Port Townsend, WA dated 1975, 1993;

#### Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	N/A.
USDA Sources	N/A.
NOAA Sources	N/A.
USACE Sources	N/A.
State/Local/Tribal Sources	WDFW Fish Passage Web App accessed April 2021; WDFW SalmonScape
	accessed April 2021

⁴ Some excluded waters, such as (b)(2) and (b)(4), may not be specifically identified on the AJD form unless a requestor specifically asks a Corps district to do so. Corps districts may, in case-by-case instances, choose to identify some or all of these waters within the review area.
⁵ Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1)

exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.



Data Source (select)	Name and/or date and other relevant information
Other Sources	EPA WATERS Feature Layer accessed April 2021 via Google Earth

# B. Typical year assessment(s): N/A

# C. Additional comments to support AJD:

The subject ditch flows south along the northern and western boundaries of the subject property before discharging to the West Fork of Quilceda Creek southwest of the site. Along the western boundary of the subject property, the ditch runs parallel to and east of existing railroad tracks. The subject ditch is an artificial drainage ditch that was constructed to convey stormwater from impervious surfaces on properties to the north of the site. The subject ditch is regulated as a Municipal Separated Storm Sewer System (MS4) through the City of Marysville Phase II NPDES permitting program. An MS4 is a conveyance that is owned by a public entity that discharges to waters of the U.S., is designed or used to collect or convey stormwater, is not a combined sewer, and is not part of a sewage treatment plant.

At the southwest corner of the site are a set of fish screens which prevent fish from traveling from the West Fork of Quilceda Creek into the subject ditch. There is a short segment of ditch that runs south of the screen before passing under the railroad tracks to the west. The WDFW considers the fish screens to be the end of a natural stream channel, with all fish bearing waters occurring south and west of the railroad tracks. The segment of the ditch south of the existing fish screens is not subject to this jurisdictional determination.

Based on a review of historic topographic maps, the subject ditch was not constructed in a tributary and did not relocate a tributary. The nearest potential water of the U.S., West Fork of Quilceda Creek, appears channelized along the western side of the railroad tracks, where it currently exists today, on historic topographic maps dated 1956. The subject ditch does not appear on any historic topographic maps, and no natural stream or waterbody existed historically in the subject ditch's current location. Based on this information, the subject ditch was not constructed in a tributary and did not relocate a tributary.

Sewall Wetland Consulting, Inc. conducted wetland studies on the entire subject property and did not identify any wetlands. Historic topographic maps do not depict historic wetlands at the subject property. Based on a review of aerial imagery, the site has been continuously farmed since the 1800s. The NWI map depicts an emergent wetland at the southern end of the subject property; however, presence of this wetland was not verified by the WDFW and mapping was based solely on aerial photograph interpretation. Sewall Wetland Consulting, Inc. provided wetland determination data forms for several data points within the area mapped as wetland on the NWI map, and the plots lacked the required hydrophytic vegetation. hydric soil, and wetland hydrology. The wetland determination data forms for the subject property also indicate the presence of active drainage tiles on the site which would effectively drain the site and preclude wetlands. In addition, the railroad tracks located along the western boundary of the property are depicted on the earliest historic topographic maps dating back to 1911. On all available historic topographic maps, the subject property is separated from the nearest potential water of the U.S. by the railroad tracks. It is likely that the railroad tracks would have prevented a hydrologic connection between any historic wetlands on the property and the nearest potential water of the U.S., thus historic wetlands would not have been considered adjacent. Based on this information, there is no evidence to support that the subject ditch was excavated within adjacent wetlands.



Based on the above information, the subject ditch is a stormwater control feature that was excavated in upland or non-jurisdictional waters to convey stormwater runoff. The subject ditch does not meet the conditions of paragraph (a)(2).

# Attachment E – AJD Review Areas



# AJD Request for ditch along Parcels #31052900201300 and #31052900201401 48.15191667, -122.20055556 Marysville, Washington

#### NWS-2021-151

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# Attachment F – Qualifications

All field inspections, jurisdictional wetland determinations, OHW determinations, habitat assessments, and supporting documentation, including this <u>Wetland and Fish and Wildlife Habitat</u> <u>Assessment File Review Technical Memorandum</u> prepared for the <u>Marysville 172nd</u> <u>Assemblage</u> site, were prepared by, or under the direction of, Matt DeCaro of SVC. In addition, report preparation was completed by Morgan Kentch, and quality assurance was completed by Rachael Hyland.

# Matt DeCaro

Associate Principal Professional Experience: 13 years

Matt DeCaro is an Associate Principal and Senior Scientist with a diverse background in environmental planning, wetland science, stream ecology, water quality, tree assessments, site remediation, NEPA compliance, and project management. He manages a wide range of industrial, commercial, and multi-family residential projects throughout Western Washington, providing environmental permitting and regulatory compliance assistance for land use projects from their planning stages through entitlement and construction. His local expertise, diverse professional background, and positive relationships with regulatory personnel are integral components of his successful project outcomes.

Matt earned a Bachelor of Science degree with a focus in Environmental Science from the Evergreen State College in Olympia, Washington, with additional graduate-level coursework and research in aquatic restoration and salmonid ecology. Matt has received 40-hour wetland delineation training (*Western Mountains, Valleys, & Coast and Arid West Regional Supplements*) and regularly performs wetland, stream, and shoreline delineations. Matt has been formally trained in the use of the 2014 Washington State Wetland Rating System and Determination of Ordinary High Water Mark by WSDOE, and he is a Pierce County Qualified Wetland Specialist and Wildlife Biologist. He has attended USFWS survey workshops for multiple threatened and endangered species, and he is a Senior Author of WSDOT Biological Assessments. Matt holds 40-hour HAZWOPER training and has managed Phase I Environmental Site Assessments, subsurface investigations, and contaminant remediation projects throughout the Pacific Northwest. His diverse experience also includes NEPA compliance for federal permitting projects; noxious weed abatement; army ant research in the Costa Rican tropical rainforest; spotted owl surveys on federal and private lands; and salmonid spawning and migration surveys.

# Rachael Hyland, PWS, Certified Ecologist

Senior Environmental Scientist Professional Experience: 9 years

Rachael Hyland is a Senior Environmental Scientist with extensive wetland and stream delineation and regulatory coordination experience. Rachael has a background in wetland and ecological habitat assessments in various states, most notably Washington, Connecticut, Massachusetts, Rhode Island, and Ohio. She has experience in assessing wetland, stream, riparian, and tidal systems, as well as complicated agricultural and disturbed sites. She currently performs wetland, stream, and shoreline delineations and fish and wildlife habitat assessments; conducts environmental code analysis; and prepares environmental assessment and mitigation reports, biological evaluations, and permit applications to support clients through the regulatory and planning process for various land use projects. She also has extensive knowledge of bats and their associated habitats and white nose syndrome (*Pseudogymnoascus destructans*), a fungal disease affecting bats which was recently documented in Washington.

Rachael earned a Bachelor of Science degree in Ecology and Evolutionary Biology from the University of Connecticut, with additional ecology studies at the graduate level. Rachael is a Professional Wetland Scientist (PWS) through the Society of Wetland Scientists as well as a Certified Ecologist through the Ecological Society of America. She has completed 40-hour wetland delineation training for Western Mountains, Valleys, & Coast and Arid West Regional Supplement, in addition to formal training for the Northcentral and Northeast supplement, and experience with the Midwest, Eastern Mountains and Piedmont, and Atlantic and Gulf Coast supplements. She has also received formal training from the Washington State Department of Ecology in the Using the Revised 2014 Wetland Rating System for Western Washington, How to Determine the Ordinary High Water Mark, Navigating SEPA, Selecting Wetland Mitigation Sites Using a Watershed Approach, and Wetland Classification. Rachael has also received training from the Washington State Department of Transportation Projects and is listed by WSDOT as a junior author for preparing Biological Assessments.

# Morgan Kentch

Staff Scientist Professional Experience: 3 years

Morgan Kentch is a Staff Scientist with a background in marine biology and both marine and freshwater ecology in Washington State. Morgan earned her Bachelor of Science degree in Biology with marine emphasis from Western Washington University, Bellingham. There she received extensive, hands-on experience working in lab and field settings, and studying local marine and aquatic organisms and ecosystems. One of Morgan's more exceptional projects included monitoring a stream restoration project for the City of Bellingham by assessing stream habitat and biotic quality, collecting data, identifying local stream invertebrates, and writing a report outlining analyzed results. Morgan also participated in a study abroad program in La Paz, Baja California Sur, where she led an independent study on the effects of temperature on bioluminescent organisms in a local bay. Through this project, she demonstrated a strong understanding of collecting background research, following the scientific method, conducting scientific research, and writing a scientific paper formatted for journal submission.

Morgan currently assists in wetland, stream, and shoreline delineations and fish and wildlife habitat assessments; conducts environmental code analysis; and prepares environmental assessment and mitigation reports, biological evaluations, and permit applications to support clients through the regulatory and planning process for various land use projects. She has received wetland delineation training (Western Mtns, Valleys, & Coast and Arid West Regional Supplement), and has received formal training through the Washington State Department of Ecology and Coastal Training Program in Using the 2014 Wetland Rating System, How to Determine the Ordinary High Water Mark, and How to Conduct a Forage Fish Survey.