### **Attachment 4D**

## Jurisdictional Wetland Delineation for Maple Creek Property

APN 315-011-009

February 2019

Prepared For:

Maple Creek Investments LLC

Prepared by:

455 I Street Suite 202 Arcata, CA 95521



### EXECUTIVE SUMMARY

The purpose of this report is to provide an assessment of the type and extent of jurisdictional wetlands and waters affected by cannabis cultivation and grading for the Maple Creek property. Jurisdictional resources considered for this report include wetlands and non-wetland "waters of the U.S." regulated by the U.S. Army Corps of Engineers (USACE); "waters of the State" regulated by the North Coast Regional Water Quality Control Board (NCRWQCB); and the bed, bank, and channel of all lakes, rivers, and/or streams (and associated riparian vegetation), as regulated by the California Department of Fish and Wildlife (CDFW).

The jurisdictional delineation work was performed by Tami Camper M.A. of TransTerra Consulting October 24, 2018 using the USACE Regional Supplement to the Corps of the Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). A subsequent site visit was conducted by Cameron Purchio of Mother Earth Engineering on April 19, 2019. The subsequent visit was to investigate areas for proposed cannabis cultivation along the southwestern boundary. The proposed project is located off Maple Creek Road near Maple Creek in Humboldt County, CA on the U.S. Geological Survey's (USGS') Korbel 7.5-minute quadrangle map.

Wetland features were identified based on the USACE's three-parameter approach in which wetlands are defined by the arms of the control of the company of the control of the control

Wetland features were identified based on the USACE's three-parameter approach in which wetlands are defined by the presence of hydrophytic vegetation, hydric soils, and presence of wetland hydrology indicators. Generally, the limits of non-wetland "waters of the U.S." are identified by the presence of an ordinary high-water mark (OHWM). The limits of CDFW jurisdictional waters in this project were identified as the top of bank.

The area of investigation contained 1.29-acres of jurisdiction wetland. The wetland is hydrologically connected to Maple Creek within the jurisdiction of USACE, NCRWQB, and CDFW and must be considered for the Humboldt County SMA policies. The wetland area includes 0.11-acres of Palustrine Emergent Wetland (PEM), 0.17-acres of seasonal Palustrine Scrub-Shrub and .51-acres of Riverine Unconsolidated Bottom (R3U).

Best management practices, buffers and any required mitigation will be determined in subsequent document for Mitigation and Monitoring.

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### 1.0 Introduction

### 1.1 Purpose and Need

This Jurisdictional Wetland Delineation report and was prepared to provide data concerning the type and extent of wetlands under the jurisdiction of the US Army Corps of Engineers (USACE), North Coast Regional Water Quality Control Board (NCRWQCB); and California Department of Fish and Wildlife (CDFW). This report is in response to the Deficiency Letter sent by the County of Humboldt Planning and Building Department Cannabis Services Division on January 29, 2019. This report is based on the fieldwork performed on October 24, 2018. The project includes commercial cannabis cultivation and associated activities.

### 2.0 Regulatory Background

### 2.1 U.S. Army Corps of Engineers (USACE)

The USACE Regulatory Branch regulates activities that may discharge dredged or fill materials into "waters of the U.S." under Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. This permitting authority applies to all "waters of the U.S." where the material (1) replaces any portion of a "waters of the U.S." with dry land or (2) changes the bottom elevation of any portion of any "waters of the U.S.". These fill materials include sand, rock, clay, construction debris, wood chips, and materials used to create any structure or infrastructure in these waters. The selection of disposal sites for dredged or fill material is done in accordance with guidelines specified in Section 404(b)(1) of the CWA, which were developed by the U.S. Environmental Protection Agency (USEPA).

### 2.2 Regional Water Quality Control Board (RWQCB)

The RWQCB is the primary agency responsible for protecting water quality in California through the regulation of discharges to surface waters under the CWA and the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The RWQCB's jurisdiction extends to all "waters of the State" and to all "waters of the U.S.," including wetlands (isolated and non-isolated).

Section 401 of the CWA provides the RWQCB with the authority to regulate, through a Water Quality Certification, any proposed, federally permitted activity that may affect water quality. Among such activities are discharges of dredged or fill material permitted by the USACE pursuant to Section 404 of the CWA. Section 401 requires the RWQCB to provide certification that there is reasonable assurance an activity with the potential for discharge into navigable waters will not violate water quality standards. Water Quality Certification must be based on findings that the proposed discharge will comply with water quality standards, which contain numeric and narrative objectives found in each of the nine RWQCBs' Basin Plans.

### 2.3 California Department of Fish and Wildlife

The CDFW has jurisdictional authority over wetland resources associated with rivers, streams, and lakes pursuant to the California Fish and Game Code (§§1600–1616). Activities of state and local agencies, as well as public utilities that are project proponents, are regulated by the CDFW under Section 1602 of the California Fish and Game Code.

Because the CDFW includes streamside habitats under its jurisdiction that, under the federal definition, may not qualify as wetlands on a project site, its jurisdiction may be broader than that of the USACE. Riparian forests in California often lie outside the plain of ordinary high water regulated under Section 404 of the CWA, and often do not have all three parameters (wetland hydrology, hydrophytic vegetation, and hydric soils) sufficiently present to be regulated as a wetland.

However, riparian forests are frequently included within CDFW regulatory jurisdiction under Section 1602 of the California Fish and Game Code.

The CDFW jurisdictional limits are not as clearly defined by regulation as those of the USACE. While they closely resemble the limits described by USACE regulations, they include riparian habitat supported by a river, stream, or lake regardless of the presence or absence of hydric and saturated soils conditions. In general, the CDFW extends jurisdiction from the top of a stream bank or to the outer limits of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place within or near a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish and other aquatic plant and/or wildlife species. It also includes watercourses that have a surface or subsurface flow that support or have supported riparian vegetation.

### 2.4 Humboldt County-Streamside Management Area:

"Streamside Management Areas" (SMAs) [Section 3432(5) of the Humboldt County 1984 General Plan] are defined in the Humboldt County General Plan (Page G-8) and include a natural resource area along both sides of streams containing the channel and adjacent land. Updates to the SMA guidance for cannabis activities are defined in the Environmental Impact Assessment Biological Resources Section<sup>1</sup>.

Project applicants proposing development activities within a SMA or wetland areas are required to include a site-specific biological report prepared consistent with these regulations. The written report prepared by a qualified biologist is subsequently referred to CDFW for review and comment. If required, after agency review of the preliminary habitat assessment, protocol level surveys will be completed per recommendations by the Final Environmental Impact Report (FEIR) amendments to the Humboldt County Code Regulating Commercial Cannabis Activities<sup>2</sup>.

### 2.5 Additional Laws and Policies

In addition to the above-mentioned policies, numerous other policies exist to protect wetlands, waters and biological resources including the California Environmental Quality Act (CEQA), California Endangered Species Act (CESA) and the Z'berg-Nejedly Forest Practice Act.

PDF.

Humboldt County General Plan-Revised DEIR (Accessed via

https://humboldtgov.org/DocumentCenter/View/58840/Section-311-Biological-Resources-Revised-DEIRPDF)

Final Environmental Impact Report: Amendments to the Humboldt County Code Regulating Commercial Cannabis Activities. January 2018. Prepared by Ascent Environmental. Accessed via https://humboldtgov.org/DocumentCenter/View/62689/Humboldt-County-Cannabis-Program-Final-EIR60mb-

### **Environmental Setting** 3.0

### Location 3.1

But ler salley The project area is located off Maple Creek Road in Maple Creek area (Section 6, T4N, R3E) in Humboldt County, California. The project is located on a 42-acre parcel within the U.S. Geological Survey's (USGS) Korbel 7.5-minute quadrangle map. Elevation is approximately 400-700 feet above sea level. Property is in the Mad River Watershed.).3 (Figure 1)

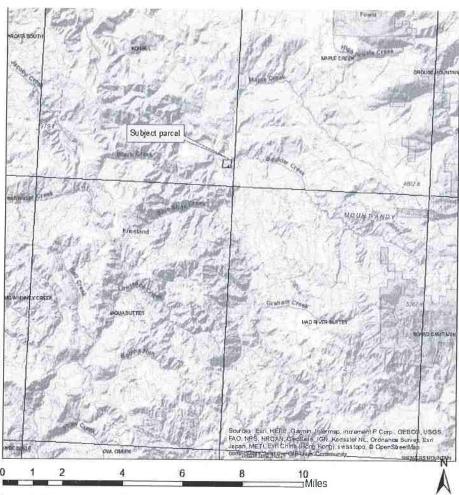


Figure 1. Project Location (created using ArcMap 10.6 and Humboldt County APN GIS layer)

<sup>&</sup>lt;sup>3</sup> <u>Humboldt County GIS Desktop</u> (Accessed via http://webgis.co.humboldt.ca.us/HCEGIS2.0/)

### 3.2 Soil, Topography, Hydrology

Two soil types are mapped in the project area on the Web Soil Survey. The parcel is primarily composed of Wiregrass-Pittplace-Scaath complex, 9 to 30 percent slopes (584) and Coppercreek-Slidecreek-Lackscreek complex, 30 to 50 percent complex. These soils are not considered hydric and are on deep, well drained soils that formed in colluvium derived from sandstone and mudstone found on hills and mountains. <sup>4</sup>

The Wiregrass series consists of very deep, well drained soils that formed in colluvium and residuum from schist, sandstone, and mudstone. Wiregrass soils are on mountains and have slopes of 0 to 75 percent. The mean annual precipitation is about 2290 millimeters (90 inches) and the mean annual temperature is about 12 degrees C (54 degrees F). Pittplace soils have more than 35 percent clay in their control sections and are above the Wiregrass soils on gentler slopes. Scaath soils are loamy-skeletal in their control sections and are on convex slopes or on spur ridges above the Wiregrass soils.

The Coppercreek series consists of very deep, well drained soils that formed in colluvium and residuum from schist, sandstone, and mudstone. Coppercreek soils are on mountains and have slopes of 9 to 75 percent. The mean annual precipitation is about 2160 millimeters (85 inches) and the mean annual temperature is about 11 degrees C (52 degrees F). Lackscreek soils are loamy-skeletal in their control sections, are 50 to 102 centimeters (20 to 40 inches) deep to bedrock and are on convex slopes or on spur ridges above the Coppercreek soils. Slidecreek soils are also loamy-skeletal in their control sections and are alongside the Coppercreek soils on very gravelly colluvium.

The project area ranges from 15 to 30% sloping at approximately 500-550 feet above sea level. Project area has two (2) class II watercourses that drain to the Mad River approximately 500 feet to the southwest. Mad River and sequential streamside management areas (SMA) runs through the southwestern portion of the parcel. The area is mapped as possessing low levels of instability in the Humboldt County GIS database near the Eaton Roughs fault zone.

### 3.3 Vegetation

Vegetation is variable throughout the parcel, but primarily composed of mixed evergreen forest. Dominant trees species included *Pseudotsuga menziesii* var *menziesii* (Douglas fir), *Umbellularia californica* (California bay), *Acer macrophyllum* (big leaf maple), *Quercus kelloggii* (California black oak), *Fraxinus latifolia* (Oregon ash), and *Arbutus menziesii* (madrone). Shrub species and density were variable depending upon hydrology and canopy. Most areas were dominated by *Rosa gymnocarpa* (wood rose), *Baccharis pilularis* (coyote brush), *Rubus armeniacus* (Himalayan blackberry), *R. parviflorus* (thimbleberry), *R. leucodermis* (white-stemmed raspberry), *Pteridium aquilinum* var. *pubescens* (Western bracken fern), *Toxicodendron diversilobum* (poison oak), *Symphoricarpos mollis* (creeping snowberry), *Holodiscus discolor* (oceanspray), *Cotoneaster* sp. (cotoneaster), and *Rhamnus purshiana* (coffeeberry) as well as small tree species. The herb layer ranged from very dense to sparse, also dependent upon canopy and hydrology. Species observed included Equisetum

<sup>&</sup>lt;sup>4</sup> <u>Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey.</u> (Accessed via: https://websoilsurvey.sc.egov.usda.gov/)

telmateia spp. braunii (giant horsetail), Juncus effuses (common rush), Hypericum perforatum (Klamathweed), Leucanthemum vulgare (oxeye daisy), Holcus lanatus (velvet grass), Urtica dioica (stinging nettle), Prunella vulgaris (self-heal), Rubus ursinus (California blackberry), Plantago lanceolata (English plantain), Anthoxanthum odoratum (sweet vernal grass), Mentha pulegium (pennyroyal), Parentucillia viscosa (yellow glandweed), Briza major (large rattlesnake grass), Cynosurus echinatus (hedgehog dogtail grass), Trientalis latifolia (Pacific starflower), Clinopodium douglasii (yerba buena), Ranunculus repens (creeping buttercup), Lonicera hispidula (hairy honeysuckle), Whipplea modesta (modesty), Anaphalis margaritacea (pearly everlasting), Trifolium sp., Cirsium sp., Avena sp.. Nomenclature follows the most current scientific names in The Jepson Manual of Higher Plants of California Second Edition to the greatest degree feasible 5 Various hydrophytic plants occurred throughout the property both in areas with observed wetland hydrology as well as upland areas with compaction or mesic/shady conditions. Riparian areas near Mad River were distinct, as were seepy wetlands and old road cuts.

Areas around the cultivation site contained older domestic fruit trees including apples and pears. Many appeared to have died after maturity due to an increase in soil moisture, possibly from road runoff originating at Maple Creek road or ground water exposed ground water from historic excavation.

### Methods 4.0

### Wetland and Waters Delineation 4.1

A jurisdictional wetland delineation was conducted per request of the Regional Water Quality Control Board staff on October 24, 2018 by Tamara Camper of TransTerra Consulting. The investigation was conducted after abnormally dry conditions and less than .07 inches of rain in the previous two weeks (Table 1). Conditions were overcast with very light rain. Only the impacted wetland and palustrine wetland mapped on NWI layer were examined. Wetland delineation was performed using the USACE Regional Supplement to the Corps of the Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) 6.

The wetland observation point (Point 1) was chosen based upon obvious hydrology. The pit was excavated as close to the water as possible while still being dry enough to obtain a good core sample. The area was an excavated spring with surface water. The closest, undisturbed upland area was investigated next at Point 2. The last observation point (Point 3) was located in a drainage area near the road and landing. Field Forms are attached to this document.

Soils, vegetation and hydrology were disturbed in some areas of the wetland due to access and excavation of the spring. A modified methodology using visible hydrology of apparent drainage patterns, geomorphic position, and vegetation was used to determine upland/wetland boundaries.

https://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/stelprdb1046494.pdf)

<sup>5</sup> The Jepson Manual: Higher Plants of California Second Edition (Accessed via http://ucjeps.berkeley.edu/jepman.html)

<sup>6</sup> USACE Regional Supplement to the Corps of the Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (Accessed via

The Trimble TDC100 was used for GPS points and tracking, and ArcMap was used to create the wetland map and buffers.

A subsequent site visit was conducted by Cameron Purchio of Mother Earth Engineering on April 19, 2019. The subsequent visit was to investigate areas for proposed cannabis cultivation along the southwestern boundary. Four observations pits were excavated, and field forms were filled out. Pit A was chosen based on visible drainage patterns in the forest above the proposed cultivation areas. Pit B was chosen based upon visible wetland hydrology. Pit C was the closest area that appeared to be upland near Pit B. Pit C was chosen based on drainage patterns in the forest area.

The Riverine area was delineated using visual observations of the break in slope instead of Ordinary High-Water Mark (OHW) per guidelines currently set forth for cannabis regulation.

Table 1: Precipitation table for October survey period 7

			KAC	V Octob	er, 2018				
Date	Observed Low (F)	Observed High (F)	Normal Low (F)	Normal High (F)	17 F (10 m)	Year	Record High (F)	Year	Observed Precipitation (inches)
1	53	64	46	63	M	M	M	M	.07
2	56	69	46	63	M	M	M	M	TABLE
3	53	60	45	63	M	M	М	M	0
4	43	61	45	63	M	M	M	М	T
5	42	60	45	63	M	M	M	M	.30
6	46	63	45	63	M	M	M	M	.02
7	41	69	45	63	M	M	M	M	0
8	44	68	45	63	M	M	M	М	0
9	44	65	45	63	M	М	M	M	0
10	40	64	45	63	M	M	M	M	0
11	42	54	45	63	M	M	М	M	0
12	41	73	45	63	M	M	M	М	0
13	41	67	45	63	M	M	M	M	0
44	37	53	44	62	M	M	M	M	0
15	33	68	44	62	M	M	M	M	0
16	37	60	44	62	M	M	M	M	0
17	46	52	44	62	M	M	М	М	0
18	46	56	44	62	M	M	М	M	0
19	48	53	44	62	M	M	М	M	0
20	45	52	44	62	M	M	M	M	0
21	45	51	44	62	M	M	M	M	0
22	46	53	44	62	M	M	M	М	0
23	48	64	44	61	M	M	M	M	.07
24	43	59	44	61	M	M	M	М	0
Average	44.4	61.4	44.4	62.1					0.89 Normal = 2.87

 $<sup>^7</sup>$  National Weather Service Forecast Office-Eureka, CA (Accessed via https://www.wrh.noaa.gov/climate/monthdisp.php?stn=KACV&year=2018&mon=10&wfo=eka)

Table 2: Precipitation table for April survey period <sup>8</sup>

Date		Observed High (F)	Normal Low (F)	Normal High (F)		Year	Record High (F)		Observed Precipitation (inches)
1	51	59	41	56	M	M	M	M	.11
2	52	60	41	56	M	M	M	M	.22
3	52	57	41	56	M	M	M	M	.09
4	52	62	41	56	M	M	M	M	.07
5	51	58	41	56	M	M	M	M	.83
6	50	63	41	56	M	М	M	M	.13
7	56	66	41	56	M	M	М	М	.46
8	48	60	41	56	M	M	M	M	1.31
9	48	57	41	56	M	M	M	M	.08
10	43	58	41	56	M	M	M	M	T
11	46	52	41	56	M	M	M	М	.05
12	45	58	41	56	M	M	M	М	0
13	48	55	41	56	M	M	M	М	Tall Tall
14	42	56	41	56	M	M	M	M	.05
15	41	55	41	56	M	M	M	М	.09
16	45	56	41	56	M	M	M	M	.11
17	40	58	41	56	M	M	M	M	0
18	46	61	42	56	M	M	M	М	0
19	52	57	42	56	M	M	М	M	0

<sup>\*</sup> National Weather Service Forecast Office-Eureka, CA (Accessed via https://www.wrh.noaa.gov/climate/monthdisp.php?stn=KACV&year=2018&mon=10&wfo=eka)

### 5.0 Results and Discussion

### 5.1 Jurisdictional Wetland and Waters

The 1.29-acres of wetland examined are jurisdictional features protected by the CWA. The NWI mapped wetland (R3U) extends slightly further than the break in slope and the riparian vegetation along the banks could be considered waters of the state.

Along with hydrology indicators, adult and juvenile beetles in Gyrinidae family and Pacific chorus frog (*Pseudacris regilla*) juveniles were observed in the water. Hydrology for all wetlands appeared to be seasonal. There was evidence of historic grading in the cultivation areas as well as excavation of the spring, use of old skid road.

Vegetation at the mapped in the wetlands was dominated by obligate and facultative wet species such as Juncus patens (spreading rush), Mentha pulegium (pennyroyal), Cyperus eragrostis), (Tall flat sedge), Equisetum sp. (horsetail), Carex obnupta (slough sedge), Ranunculus repens (buttercup) and Trifolium sp. (clover) as well as grasses that were lacking identifiable characteristics at the time of the survey. Though the wetlands on the eastern portion of the property were delineated as PSS and PEM, they existed in a somewhat mosaic pattern of shrub, forest and herbaceous species without clearly defined vegetation boundaries. They hydrology was similar for all areas and the vegetation varied primarily based on disturbance and/or canopy level and light exposure.

Vegetation in upland areas was variable, but was primarily composed of mixed evergreen forest with a sparse understory and large amount of small woody debris and leaf litter as well as some area of dense brush where there overstory was more open

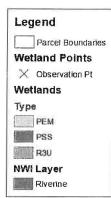
Wet areas appeared to be created from a combination of exposed ground water and surface flow from excavation, grading and road drainage primarily.

Fill of wetlands was not observed however the cultivation areas and roads were within the prescribed buffers imposed by the Humboldt County Grading Ordinance for SMAs. The wetland areas contain habitat for various species of concern including project activities for numerous species are possible, including, but not limited to: Rhyacotriton variegatus (southern torrent salamander), Taricha rivularis (red-bellied newt), Emys marmorata (western pond turtle), and multiple plant species. Maple Creek contains habitat for Oncorhynchus mykiss irideus (summer-run steelhead trout), Oncorhynchus tshawytscha (Chinook salmon), O. kisutch (coho salmon), O. mykiss (steelhead trout), Lampretra richardsonii (western brook lamprey), Entosphenus tridentata (Pacific lamprey), and other aquatic and riparian species.



Based upon Field Observations October 24, 2018 and April 19, 2019. Regional Supplement to the USACE Wetland Delineation Manual: Western Mountains Valleys and Coast Region, Forms attached to Report.

Yellow polygons outline study area





Wetland Type

Acres

Figure 2: Wetland Delineation Results

### 5.2 Recommendations

Recommendations for the project site include the following measures:

Follow all recommendations outlined by existing agency policies for minimizing impacts to natural resources and begin technical assistance to determine the possible extent of impacts to listed resources and appropriate mitigation measures.

- If impacts to wetlands are expected, develop a Mitigation and Monitoring Plan, to minimize disturbance to the area. Numerous seeps provide evidence of shallow groundwater in this area, and additional disturbance, clearing, and road cuts would likely modify existing groundwater, and surface water patterns. The slopes, combined with wet conditions would likely cause additional erosion and instability in the area, which could subsequently increase direct and indirect effects to water quality and other resources. Additional disturbance to this area could also potentially impact aquatic species.
- Employ temporary erosion control measures and best management practices (BMPs) to reduce sediment entering the wetland and traveling to waters.
- Protocol level surveys prior to additional site disturbance are recommended for any
  areas where relocation of structures or roads may impact rare or endangered species.
  Surveys and appropriate protection measure for aquatic species, conducted by a
  qualified biologist are also recommended for any crossings or points of diversion that are
  listed for alteration. Consultation with agency personnel from CDFW and USFWS is
  recommended if project scope changes or additional areas will be disturbed.

Please contact me with any comments or concerns regarding this memorandum or future work required for your project. I can be reached at <a href="mailto:tami@trans-terra.com">tami@trans-terra.com</a> or (707) 845-7483. I have included my project experience as an attachment to this memorandum as it is often requested by agency personnel reviewing work of this nature. (Appendix B)

### 6.0 References

- Baldwin, B.G., D.H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. *The Jepson Manual: Vascular Plants of California, second edition*. University of California Press, Berkeley.
- Calflora: Information on California plants for education, research and conservation. [web application]. 2014. Berkeley, California: The Calflora Database [a non-profit organization]. Available: https://www.calflora.org/ (Accessed: October 2018).
- California Department of Fish and Wildlife, Natural Diversity Database, BIOS. 2016.
  California Department of Fish and Wildlife, Biogeographic Data Branch,
  Sacramento, CA. Accessed October 2018.
- CNPS (California Native Plant Society). 2019. *Inventory of Rare and Endangered Plants*. (online edition, v8-02). California Native Plant Society. Sacramento, CA. Accessed October 2018.
- Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A Manual of California Vegetation Online, 2nd edition. California Native Plant Society, Sacramento, CA. Accessed May 2017. <a href="http://vegetation.cnps.org/">http://vegetation.cnps.org/</a>.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: https://websoilsurvey.sc.egov.usda.gov/. [Accessed December/18/2018].
- Webgis.co.humboldt.ca.us. (2019). *ArcGIS Web Application*. [online] Available at: http://webgis.co.humboldt.ca.us/HCEGIS2.0/ [Accessed December/18/2018].



# Appendix A





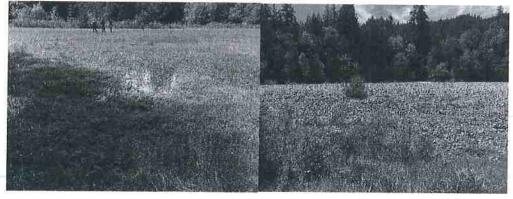
Typical upland soils (dry) lacking redox features and typical upland vegetation.



Spring area and surrounding wetland scrub mosaic wetland



Wetland areas above Pit 3 and below Pit 1. PEM/PSS



Wetland areas near Maple Creek



Redox features in Pits 1 and 3.



# Appendix **B**



# Tamara Camper 455 I Street · Arcata, CA 95521 · (707) 845-7483 tami@trans-terra.com · www.linkedin.com/in/tamaracamper/ @itstransterra

### Education

December 2007-M.A. Biology, HUMBOLDT STATE UNIVERSITY
December 1999-B.S. Environmental Science, WESTERN WASHINGTON UNIVERSITY
RICHARD CHINN 40 HR WETLAND TRAINING DECEMBER 2003

### Experience

May 2018-Present-Principle-Environmental scientist, TRANSTERRA CONSULTING LLC
Principal Owner at TransTerra Consulting. Providing Environmental Consulting Services <u>including Biological Assessments</u>, <u>Rare Species Surveys</u>, <u>Vegetation and Habitat Typing/Mapping</u>, <u>Stream and Wetland Surveys</u>, Environmental Impact Assessments, Permitting, Land Use/Planning, and CEQA/NEPA Documents

### November 2011-May 2018-Associate Environmental Planner, CALTRANS

Promoted through increasingly responsible positions based on performance and experience in Humboldt, Del Norte and Mendocino. Served as Coastal Liaison, Restoration Specialist and CEQA/NEPA Coordinator. Developed programmatic interagency guidelines, workload coordination, permit process training, budgets, contracts, and internal process efficiency. Wrote and reviewed environmental documents including EAs and IS-MNDs, BAs, Section 7 and 10 consultations, oversaw and conducted biological/wetland surveys, mitigation and monitoring work and reporting.

October 2008-November 2011-Biologist/Environmental Planner, STREAMLINE PLANNING CONSULTANTS

Provided natural resource and policy expertise for a wide-range of public and private projects affecting natural resources. Conducted <a href="mailto:stream/riparian assessments">stream/riparian assessments</a>, botanical surveys, wetland delineation, impact assessments and <a href="mitigation/monitoring reports">mitigation/monitoring reports</a> in accordance with CEQA, FPR, ESA, NEPA, the Water Quality Act, Coastal Act and other relevant laws for private landowners. Assisted with consultation, coordination and permit applications for listed species. Developed alternatives and mitigation design and negotiated sensitive and complex issues with multiple stakeholders.

### March 2003-November 2008-Owner-Biologist, CAMPER CONSULTING

Provided botanical/wildlife surveys, <u>wetland delineation</u>, impact assessments and <u>mitigation reports</u> in accordance with CEQA and other relevant laws for private land owners. Extensive experience working on commercial and private timberlands for THP/NTMP work

### January 2001-March 2003-Wildlife Technician, CAMPBELL TIMBERLAND MANAGEMENT

Developed a botanical program including the coordination and conduction of botanical surveys, impact assessments, <u>mitigation reports</u>, <u>monitoring studies</u>. Maintained public relations and relationships with state and federal agency personnel. Developed and maintained GIS and other databases for survey findings. Assisted with NSO, <u>anadromous fish and amphibian monitoring</u>, <u>surveying and habitat analysis</u>.

### March 2000-October 2000-Fisheries Technician, MENDOCINO REDWOOD COMPANY

Conducted <u>anadromous fish and amphibian monitoring</u>, surveying and habitat analysis. Utilized dive counts, electrofishing, sediment sampling, fish trapping, insect sampling and water quality monitoring to assess impacts to salmonids and other aquatic species in conjunction with the Department of Fish and Wildlife.

### May 1998-January 1999-Botanical Propagation Specialist, SKAGIT ROSE FARMS

Identified, propagated and maintained an inventory of native plants of the Northwest Coastal Region. Researched and developed interpretive gardens of native plant ecosystems



# Appendix C

WETLAND DETERMINATION D	ATA FORM - Western Mo	untains, Valleys, and Coast Region
Project/Site: Maple Geal -009	City/County: Mas	CREE HAM sampling Date: 10/24/19
Applicant/Owner: Shill I S INC.	\ \	State: Sampling Point:
Investigator(s): T.Co.roce	Section, Township, R	ange:
Landform (hillstope, terrace, etc.):	Local relief (concave	, convex, none): Slope (%):
		Long: Datum:
Soil Map Unit Name:		NWi classification:
Are climatic / hydrologic conditions on the site typical for the	nis time of year? Yes \ No	(If no, explain in Remarks.)
Are Vegetation Soil or Hydrology	/	"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology		needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point	locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes I	No	
	No Is the Sample within a Wetla	
	NO	the No
Remarks: excavated spring edge of water	-taken on	downhill side at
VEGETATION – Use scientific names of plan	ıts.	
	Absolute Dominant Indicator	Dominance Test worksheet:
1. ALMS NUOVA	% Cover Species? Status	Number of Dominant Species
2. Ager marroughum	FACU	That Are OBL, FACW, or FAC: (A)
3		Total Number of Dominant
4.		Species Across All Strata: (B)
7.	Z. = Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1. A rulora	S V FAC	Total % Cover of: Multiply by:
2. Kilons arministra	FAC FAC	OBI consiss U
4. Conta Canadiana (Erigu	TACU	I MACIAL COMPANIA
5 Tonger Canodina Curyo	more) <u>facu</u>	FAC species 1/0 x3= 4Q
U-	Total Cover &	FACU species 5 x4= 65
Herb Stratum (Plot size:)	, 5	UPL species x 6 ≈
1. Dancies Chisus	10 FACW	Column Totals: (10 (A) /12 (B)
2. Dinas patens	10 V FACW	Prevalence Index = B/A = 2-7
3 Juncon Theman	. S FACU	Hydrophytic Vegetation Indicators:
4 to figiscan solver	- S. TACW	1 - Rapid Test for Hydrophytic Vegetation
5. WILMANA SP	<u> 2 08</u>	2 - Dominance Test is >50%
6. K. M. W. L. C.	<u> </u>	✓3 - Prevalence Index is ≤3.01
7. 8.		4 - Morphological Adaptations (Provide supporting
9		data in Remarks or on a separate sheet)  5 - Wetland Non-Vascular Plants¹
10.		Problematic Hydrophytic Vegetation¹ (Explain)
11		¹indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	39 = Total Cover	no property caread distributed of problements.
1. Kicker Williams	S. V FAC	Hydrophytic
2		Vegetation
% Bare Ground in Herb Stratum 40	S = Total Cover	Present? Yes No
Remarks: Liked- Money & tra	actor with.	
excavaled plement		\*

Project/Site: Made Creek - 059		59	= Wills A	. (
Applicant/Owner: Studes/Most		City/County: MIC.	State:	Sampling Date: Die HT
Investigator(s): Tog remain		Section, Township, Ra	ange:	
Landform (hillslope, terrace, etc.):				
Subregion (LRR):				
Soil Map Unit Name:				
Are climatic / hydrologic conditions on the site typical for t	his time of ye	ear? Yes No_	(If no, explain in R	temarks.)
Are Vegetation, Soil, or Hydrology	significantly	disturbed? Are	"Normal Circumstances" ;	present? Yes No
Are Vegetation, Soil, or Hydrology	_naturally pro	oblematic? (If n	eeded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site maj	showing	sampling point l	locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes	No			
Hydric Soll Present? Yes		is the Sample		No_L
Wetland Hydrology Present? Yes	No	within a Wetla	nar res	No
Remarks:				
				4.
VEGETATION - Use scientific names of pla	nts.			
	Absolute	Dominant Indicator	Dominance Test work	sheet:
Tree Stratum (Plot size:)	% Cover	Species? Status	Number of Dominant S	pecies
1			That Are OBL, FACW,	or FAC: (A)
2.			Total Number of Domin	
3.			Species Across Ali Stra	ta: (B)
4.			Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size:)		= Total Cover	That Are OBL, FACW, o	
1. Face and Olympia	10	~ NOL	Prevalence index work	TERROTON OF TOTAL POST LANGE?
2. Toricodentem ditersion	10. 2	FAC	Total % Cover of:	
3. There 3 remain seems		FAL	The state of the s	x1=
4		57-11-11-11-11-11-11-11-11-11-11-11-11-11		x2=
5			10 24 10 10 10 10 10 10 10 10 10 10 10 10 10	x3=
Clark Olarkon (Olafella)	14_	= Total Cover 5/7		x5=
Herb Stratum (Plot size:  1. Anthonican than tobyration	20	Y FACU	Column Totals:	
- 73	- 20	FACW	Costalia rodas.	(0)
3. Junes of the	- 20	1 FACW	Prevalence Index	
A		FACW !	Hydrophytic Vegetatio	
5 John II along variation		FACU		lydrophytic Vegetation
- Constant			2 - Dominance Test	
7			3 - Prevalence Inde	
8.				daptations' (Provide supporting or on a separate sheet)
9.	P. P		5 - Wetland Non-Va	1
10				hytic Vegetation <sup>†</sup> (Explain)
1			'Indicators of hydric soil	and wetland hydrology must
	50.	Total Cover 35	be present, unless distur	rbed or problematic.
Woody Vine Stratum (Plot size:)	,	YACU		
Languera Nisidula		THUM	Hydrophylic	
2 Kirbre textitus		IAC	Vegetation Present? Yes	No L
% Bare Ground in Herb Stratum		Total Cover	700	
Remarks: 0 // // /	7.	7 7 7		
Some tacultame	- no	duphyte	J	000
Conpacted a	1,10	1 9/10	- 11-	) A
1.6111.1.0000 86	ar ou	& Merro	co-10va	in car mon Co

11 1 1 1 1	h 1.	1 0 . 1 12.
Project/Site: Marole Creak -009	City/County: Y\A	pu Prock, HW Sampling Date: 15/24/
Applicant/Owner: Shields/MCM		State: A Sampling Point: 3
	Section, Township, F	
Landform (hillslope, terrace, etc.):		e, convex, none): <u>Cav-C</u>
		Long: Datum:
		NWI classification:
are climetic / hydrologic conditions on the site typical for the		
re Vegetation, Soll, or Hydrology		e "Normal Circumstances" present? Yes No _
Are Vegetation, Soil, or Hydrology	naturally problematic? (If	needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling point	locations, transects, important features, e
	No	and & man
, , ,	No is the Sample within a Weti	
Wettand Hydrology Present? Yes   Remarks:	No Within a west	
(4)		***
EGETATION - Use scientific names of plan	ıts.	
Tree Stratum (Piot size:)	Absolute Dominant Indicator	
1. Franchus latiblium	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:
Rucolstan Minerall	5 FACU	
Walne so	5 NOL	Total Number of Dominant Species Across All Strata:
4		
	10 = Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 42.50 (A
Sapling/Shrub Stratum (Plot size:	10 L FACI	
Mose gymnocont -		OBL species // x1= //
4.		FACW species Sto x2= 117
		FAC species  x3 = 0
	20 = Total Cover /S	FACU species 30 x4= 128
Herb Stratum (Plot size:	40 V. FACW	UPL species
Musha sulenin	20 V OBL	7-
LINE MICHARTHAN -	10 Not	Prevalence Index = B/A = 2.5
Cover Derupta	JO ORL	Hydrophytic Vegetation Indicators:
Huperain perstation	3 FACU	
. Law ise hum, do (Helmatia)	FACU	
lawx daruptor	CI DBL	4 - Morphological Adaptations* (Provide supporti
Epilopaum haliahaan	LI FACW	data in Remarks or on a separate sheet)
		5 - Welland Non-Vascular Plants
0		Problematic Hydrophytic Vegetation¹ (Explain)
1	777	Indicators of hydric soll and welland hydrology must be present, unless disturbed or problematic.
/oody Vine Stratum (Plot size:	70= Total Cover	Property of property of property of
		Hydrophytic
en e		Vegetation
Wa 2		Present? Yes No
Bare Ground in Herb Stratum_/O	= Total Cover	

Project/Site:	Cit	V/County: Hum	sampling Date: 19 April 201
Applicant/Owner:			State: CA Sampling Point: #1.7A
Investigator(s): Cameron Purchio / Tami Cam	aper se	ction, Township, Ra	ande:
			convex, none): hou c Slope (%): 20%
			Long: -123, 88220 Datum:
Soil Map Unit Name:			NWI classification:
Are climatic / hydrologic conditions on the site typical for t			(If no, explain in Remarks.)
Are Vegetation <u>NO</u> , Soil <u>NU</u> , or Hydrology <u>ha</u>			"Normal Circumstances" present? Yes No
Are Vegetation 10. Soil 10, or Hydrology 10			
			eeded, explain any answers in Remarks.) iocations, transects, important features, etc.
Hydrophylic Vegetation Present? Yes	·No		
Hydric Soil Present? Yes		is the Sampled	1 Area
Wetland Hydrology Present? Yes	No_V_	within a Wetla	nd? Yes No
Remarks:			
VECETATION ILLE SIGNATURE CONTRACTOR			
VEGETATION - Use scientific names of pla			1 m
Tree Stratum (Plot size:)		ominant Indicator pecies? Status	Dominance Test worksheet:
1			Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2			
3			Total Number of Dominant Species Across All Strata: (B)
4			Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)	=	Total Cover	That Are OBL, FACW, or FAC:(A/B)
1	<b>3</b> 5		Prevalence Index worksheet:
2.			Total % Cover of:Multiply by:
3.			OBL species x 1 =
4			FACW species x2 =
5			FAC species x3 =
Clark Charles (Clark share		Total Cover	FACU species x 4 = UPL species x 5 =
Herb Stratum (Plot size:)			UPL species x 5 = Column Totals: (A) (B)
2			
3.			Prevalence index = B/A =
4			Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation
5			2 - Dominance Test is >50%
6			3 - Prevalence Index is \$3.01
7.			4 - Morphological Adaptations¹ (Provide supporting
8			data in Remarks or on a separate sheet)
9			5 - Wetland Non-Vascular Plants <sup>1</sup>
10			Problematic Hydrophytic Vegetation¹ (Explain)
11			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	= 1	otal Cover	The state of the s
1			Hydrophytic N/A
2			Vegetation
% Bare Ground in Herb Stratum	= T	otal Cover	Present? Yes No
No eviance of hydri	C. Soils	or hydrolog	3y, plants not surveyed

Project/Site:	City/County:	Humbolo	4+	Samp	ling Date: 19 A	pril 2019
Applicant/Owner:			State: CA	Samp	ling Paint: #	->B
Investigator(s): Cameron Purchio / Tami Camper	Section, Tow	nship, Range:				`
Landform (hillstope, terrace, etc.): hide viver ferrace	Local relief (	concave, conve	x, none): Si	nt concal	Slope (%	~ 6-37
Subregion (LRR): Lat:						
Soil Map Unit Name:					A100555459	
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes	/	(If no, explain			
Are Vegetation, Soil, or Hydrology significantly					? Yes V	Vo.
Are Vegetation no, Soil no, or Hydrology No naturally pr			, explain any a			
SUMMARY OF FINDINGS - Attach site map showing					•	es, etc.
Hydrophytic Vegetation Present? Yes No		2	MA NEW COLUMN	-	45.10	
Hydric Soil Present? Yes No	C C C C C C C C C C C C C C C C C C C	Sampled Area a Wetland?			de.	
Wetland Hydrology Present? Yes No	within	i o vicuanu i	tes			
Remarks:						
VEGETATION – Use scientific names of plants.						
Absolute	Dominant I	#aataa   Ba			/	
	Species?	D(-1	minance Test  mber of Domini			
1		The	it Are OBL, FA		•	(A)
2			al Number of D	ominant		
3		Spe	cies Across Al			(B)
4	The state of the s	Per	cent of Domine	ant Species		
Sapling/Shrub Stratum (Plot size:)	_ = Total Cove		it Are OBL, FA			(A/B)
1		Pre	valence Index	worksheet	*	
2			Total % Cove			
3		OBI			x1=	
4,					x 2 =	
5					x3=	
Herb Stratum (Plot size:)	_ = Total Cove	OLF I			x4= x5=	
1					(A)	
2					5-7	
3			Prevalence   Irophytic Veg		=	
4					sators: nytic Vegetation	İ
5			2 - Dominance			
6						
7			4 - Morpholog	ical Adaptati	ons¹ (Provide su	porting
8					a separate sheet	
9			5 - Wetland N			
10					egetation <sup>1</sup> (Explain etland hydrology	
11		hor	present, unless	disturbed or	r problematic.	must
Woody Vine Stratum (Plot size:)	_= Total Cove	' <u> </u>			1	5
1		Hyd	Irophytic			
2		Veg	etation	V		
	_= Total Cover	Pro	sent?	Yes	No	
% Bare Ground in Herb Stratum						
mowed field						

Project/Site:	City/C	ounty:		Sampling Date: 19	April 2019
Applicant/Owner:		-	State:	Sampling Point: <u>*</u>	3->
Investigator(s): Cameron Purchio / Tami Camper	Section	n, Township, Rar	nge:	2, 4	
Landform (hillstope, terrace, etc.): high river terrace	Local		convex, none):		
Subregion (LRR): Lat: _	40.7	5153	Long: - 23.8826	2 Datum:	
Soil Map Unit Name:				tion:	
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yo	es No _	(If no, explain in Re	marks.)	
Are Vegetation, Soil, or Hydrology n a significan	ntly disturt	ped? Are "	Normal Circumstances" pr	esent? Yes	No
Are Vegetation No, Soil No, or Hydrology No naturally			eded, explain any answers		wans
SUMMARY OF FINDINGS - Attach site map showl					es, etc.
Hydrophytic Vegetation Present? Yes NoNo					
Hydric Soll Present? Yes No		is the Sampled within a Wetlan		No	1
Wetland Hydrology Present? Yes No		esternite di secritore	u: 163		
Remarks: Edge of Visible indicators, pla directly west of pit u e,	ants /-> ú	hydrolog	gy all indica	ite Uplane	4
VEGETATION - Use scientific names of plants.			7 100		
Absolu	ute Dom	inant Indicator	Dominance Test works	heet:	
Tree Stratum (Plot size:)	ver Spec	iles? Status	Number of Dominant Spe		
1			That Are OBL, FACW, or	FAC:	_ (A)
2			Total Number of Domina		
3			Species Across All Strate	E	_ (B)
Sapling/Shrub Stratum (Plot size:)	= Tot	al Cover	Percent of Dominant Spe That Are OBL, FACW, or		_ (A/B)
1.			Prevalence Index work	sheet:	
2				Multiply by:	
3			OBL species		
4			FACW species		
5			FAC species		
47 g	= Tot	al Cover	FACU species		
Herb Stratum (Plot size:)			UPL species		
1,			Column Totals:		
2				= B/A =	
3			Hydrophytic Vegetation		
5			1 - Rapid Test for Hy 2 - Dominance Test		
6			3 - Prevalence Index		
7.			March 1	daptations <sup>1</sup> (Provide su	poorting
8			data in Remarks	or on a separate shee	()
9			5 - Wetland Non-Vas		
10				hytic Vegetation¹ (Exp	
11.			Indicators of hydric soll in be present, unless distur		/ must
Woody Vine Stratum (Plot size:)		l Cover		- President	
1			Hydrophytic Vegetation		
2	= Tota			No	
% Bare Ground in Herb Stratum	= 1 ota	n Cover			
Remarks:			Land Control of the C		
				0	
×					

Project/Site:			City/County:		Sampling Date: 19 April 2019
Applicant/Owner:	/			State:	Sampling Point: #4
Investigator(s): Cameron Purchis	/ Tamil	am der	Section Township Ra	indo.	
Landform (hillslope, terrace, etc.): Lov					
Subregion (LRR):					
Soil Map Unit Name:				NWI classifica	
Are climatic / hydrologic conditions on					
Are Vegetation, Soil, c				'Normal Circumstances" pr	resent? Yes No
Are Vegetation No Soil No , c	r Hydrology 10 0	naturally pro	blematic? (If ne	eeded, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS -	Attach site ma	ap showing	sampling point I	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present?	Yes	No			
Hydric Soil Present?	Yes	No_/	Is the Sampled		/
Wetland Hydrology Present?	Yes	No_V_	within a Wetlan	nd? Yes	No V
Remarks:		7		***************************************	A lindly are appear
				w	
VEGETATION - Use scientifi	c names of p	lants.			
Tree Stratum (Plot size:		Absolute	Dominant Indicator	Dominance Test works	sheet:
1			Species? Status	Number of Dominant Sp That Are OBL, FACW, o	
2.					
3.				Total Number of Domina Species Across All Strati	504.74
4					
			= Total Cover	Percent of Dominant Sports Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: _				Prevalence Index work	A STATE OF THE STA
1					Multiply by:
2					x1 =
3					x2=
4.				I .	x3=
5		——————————————————————————————————————	- T-1-10	FACU species	×4=
Herb Stratum (Plot size:	3		= Total Cover	UPL species	x5=
1				Column Totals:	(A) (B)
2				Prevalence Index	= B/A =
3				Hydrophytic Vegetation	
4				1 - Rapid Test for H	
5	277. 7 111111			2 - Dominance Test	is >50%
6				3 - Prevalence Inde	x is ≤3.0°
7				4 - Morphological Ar	daptations1 (Provide supporting
8					or on a separate sheet)
9				5 - Welland Non-Va	
10	4.11-1111-11111111111111111111111111111				hytic Vegetation¹ (Explain) and wetland hydrology must
11			= Total Cover	be present, unless distur	
Woody Vine Stratum (Plot size:			- Total Cover		
1				Hydrophytic	
2				Vegetation	S Age
N David Oncora half to the first			= Total Cover	Present? Yes	No
% Bare Ground in Herb Stratum Remarks:			Hammon 49		
No evidence of	hudbal	nau at	laudo's sa	oils, plants	not
surveyed	- 900 00	39	riyon ie	· · · plants	1
2000 000 60					

		nehm ne	eded to docum			or commi	the abadiloo	3.00
Depth Mat			Redax plor (moist)	Features	Type <sup>1</sup>	Loc2	Texture	Remarks
(inches) Color (mois	V 1 09		lia - La	10	C	I.A.	2	Elle cha with som
24 N 10	11.15	$\stackrel{>}{\leftarrow}$	11/2/2	100			The state of the s	1 18:114
21 + C1 4/50	st	25	125/8			<u>P</u>	errolis	SPONGERIEZ 10810
						<u> </u>		
Type: C=Concentration, D=						ed Sand Gra	ins. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix. rs for Problematic Hydric Solis³:
	phicanie to				ru, j			THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW
Histosol (A1) Histic Epipedon (A2)			sandy Redox (S stripped Matrix (					n Muck (A10) Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3)			oamy Mucky M		) (excent	MLRA 1)		Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	2.		oamy Gleyed N			t manter 1)		er (Explain in Remarks)
_ Depleted Below Dark Su	rface (A11)		epleted Matrix					,
Thick Dark Surface (A12			tedox Dark Surf				3Indicato	rs of hydrophytic vegetation and
Sandy Mucky Mineral (S		D	epleted Dark S	urface (F7	7)		wetla	nd-hydrology must be present,
Sandy Gleyed Matrix (S-	4)	R	edox Depression	ons (F8)			unles	s disturbed or problematic
estrictive Layer (if preser	it):						apple of	
Type:							1	
Type.						1	4	
Depth (inches):	Td.				SAF		Hydric Soil	Present? Yes No
Depth (inches):	rd				SIF		Hydric Soil	Present? Yes V No
Depth (inches):	To				SP		Hydric Soil	Present? Yes No
Depth (inches): temarks:  /DROLOGY /etland Hydrology Indicate		úrad: chao	we all that annivi		24			
Depth (inches):emarks:  /DROLOGY /etland Hydrology Indicate		lired: chec			5 (B0) (p)	vent	Secon	idary Indicators (2 or more required)
Depth (inches):		lired: chec	Water-Stain	ed Leaves		xcept	Secon	idary Indicators (2 or more required) later-Stained Leaves (B9) (MLRA 1,
Depth (inches):emarks:  *DROLOGY  /etland Hydrology Indicate rimary Indicators (minimum Surface Water (A1) High Water Table (A2)		iired: chec	Water-Stain MLRA 1	ed Leave: , 2, 4A, an		xcept	Secon	idary Indicators (2 or more required) /ater-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
Depth (inches):emarks:  **DROLOGY**  /etland Hydrology Indicate rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)		iired: chec	Water-Stain MLRA 1 Salt Crust (I	ed Leave: , 2, 4A, an 311)	nd 4B)	xcept	<u>Secon</u> W	idary Indicators (2 or more required) /ater-Stained Leaves (B9) ( <b>MLRA</b> 1, 4A, and 4B) rainage Patterns (B10)
Depth (inches):emarks:  'DROLOGY  /etland Hydrology Indicate rimary Indicators (minimum		lired: chec	Water-Stain MLRA 1, Salt Crust (I Aquatic Inve	ed Leave: , 2, 4A, an 311) ertebrates	nd 4B) (B13)	xcept	Secon W Di Di	idary Indicators (2 or more required) later-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Depth (inches):emarks:  DROLOGY  Vetland Hydrology Indicate rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		lired: chec	Water-Stain MLRA 1, Salt Crust (i Aquatic Inve	ed Leaves , 2, 4A, an 311) ertebrates ulfide Odd	(B13) or (C1)		Secon Vv Di Di Si	idary Indicators (2 or more required) /ater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C
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Depth (inches):  demarks:  //DROLOGY  /etland Hydrology Indicate rimary Indicators (minimum	ial imagery cave Surfac Yes Yes	(B7) æ (B8) No No	Water-Stain MLRA 1, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain Depth (inch	ed Leaves , 2, 4A, an 311) entebrates ulfide Odd izosphere Reduced Reduction Stressed P ain in Rem es):	(B13) or (C1) es along li Iron (C4 n in Tillec Plants (D2 narks)	Living Roots ) I Soils (C6) I) (LRR A)  Wetlan	Secon	dary Indicators (2 or more required) later-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) laturation Visible on Aerial Imagery (Capacitation (D2) laturation Aquitard (D3) lac-Neutral Test (D5) laised Ant Mounds (D6) (LRR A) lost-Heave Hummocks (D7)

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Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>z</sup>	Texture	Remarks
0-4	101632	700					SIL	Visit to
4-8	10-17-12	9.57	1012 4/4	35	0_	M	50	
3-14- 1	15 T 7 3 T 4	1909/0	lot I'v	2.5	1	X.L.	50-	clay losur (Cour
			540 = 13	5 %	0.	M	21	to Educate the the
-							-	SUCL WALLER A
							-	1000 De 1000 D
***				_	( <del></del>		AND THE REAL PROPERTY.	Telling to the state of the sta
-						—		Charles 1
			Reduced Matrix, CS			d Sand Gr		Sation: PL=Pore Lining, M=Matrix.
Hydric Soll Indi	cators: (Applica	able to all L	.RRs, unless other	wise note	ed.)		Indicate	rs for Problematic Hydric Solis :
Histosol (A1			Sandy Redox (					n Muck (A10)
Histic Epiper			Stripped Matrix		N Zavrama	HEL DA 41		Parent Material (TF2)
<ul><li>Black Histic</li><li>Hydrogen St</li></ul>			Loamy Mucky N Loamy Gleyed I			WILKA 1)		y Shallow Dark Surface (TF12) er (Explain in Remarks)
	ullide (A4) low Dark Surface	(A11)	<ul> <li>Loamy Gleyed</li> <li>Depleted Matrix</li> </ul>		lar.		Oin	er (Exhibit in Lettiques)
	Surface (A12)		Redox Dark Sur		14		3Indicate	ors of hydrophytic vegetation and
	y Mineral (S1)		Depleted Dark \$		7)			nd hydrology must be present,
Sandy Gleye	ed Matrix (S4)		Redox Depress	ions (F8)				s disturbed or problematic.
Restrictive Laye	er (if present):							
Туре:								
							Hydric Soll	Present? Yes No
Phyl	dy Cor	n pag	tod-1	hr. 1		Sig.	12	Present? Yes No No
Remarks:	dy Cor Jerris ti	n pag	tod-1	ho-5	4	1. J. J.	12	6/10 11
YDROLOGY Vetland Hydrolo	Jerseli Jerseli ogy Indicators:	132-V1	check all that apply	ho d	Car of	Ship Ship	3 100 cm	6/10 11
Pemarks:  YDROLOGY  Vetland Hydrolo	ogy Indicators:	132-V1	DA DIN		es (B9) (ex	J. G.	Secon	ndary Indicators (2 or more required)
YDROLOGY Vetland Hydrolo	ogy Indicators: s (minimum of one er (A1)	132-V1	check all that apply Water-Stall			Si 9	Secon	com Bli Could
YDROLOGY Vetland Hydroic frimary Indicators Surface Wate	ogy Indicators: s (minimum of one er (A1) Table (A2)	132-V1	check all that apply  Water-Stair  MLRA 1  Salt Crust (	ned Leave , <b>2, 4A, a</b> B11)	nd 4B)	Sig.	Secon V	ndary Indicators (2 or more required) /ater-Stained Leaves (B9) (MLRA 1, 2
YDROLOGY Vetland Hydroic Frimary Indicators Surface Wate High Water T	ogy Indicators: s (minimum of on er (A1) fable (A2)	132-V1	check all that apply  Water-Stair MLRA 1	ned Leave , <b>2, 4A, a</b> B11)	nd 4B)	Copt Copt		dary Indicators (2 or more required) /ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
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YDROLOGY Vetland Hydroic rimary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits	ogy Indicators: s (minimum of oner (A1) Table (A2) (B1) posits (B2) s (B3)	132-V1	check all that apply  Water-Stain  MLRA-1  Salt Crust ( Aquatic Inv  Hydrogen S Oxidized Ri	ned Leave , <b>2, 4A</b> , and B11) ertebrates Sulfide Odi nizosphere	nd 4B) (B13) or (C1) as along L	iving Root	Secon  — V  — D  — D  — S  — S  — S  — S  — S  — S	dary Indicators (2 or more required) (ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Cseomorphic Position (D2)
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YDROLOGY Vetland Hydroid Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or ( Iron Deposits	ogy Indicators: s (minimum of one) er (A1) Table (A2) (B1) posits (B2) s (B3) Crust (B4) (B5)	132-11	check all that apply  Water-Stair  MLRA 1  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized Ri  Presence o  Recent Iron	ned Leave , 2, 4A, and B11) ertebrates Sulfide Od- nizosphere f Reduced Reductio	nd 4B) i (B13) or (C1) es along L i Iron (C4) n in Tilled	iving Root Solls (C6)	Secon  W  D  S (C3)  G  F	dary Indicators (2 or more required) (ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) (rainage Patterns (B10) (ry-Season Water Table (C2) (aturation Visible on Aerial Imagery (C4) (eomorphic Position (D2) (hallow Aquitard (D3) (hallow Acuter Test (D5)
YDROLOGY  Vetland Hydroic  Primary Indicators  Surface Wate  High Water T  Saturation (A  Water Marks  Sediment De  Drift Deposits  Algal Mat or (  Iron Deposits  Surface Soll (	ogy Indicators: s (minimum of one) er (A1) Table (A2) .3) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6)	e required:	check all that apply  Water-Stain  MLRA:1  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized Ri  Presence o  Recent Iron  Stunted or S	ned Leave , 2, 4A, an B11) ertebrates Sulfide Od- nizosphere f Reduced Reductio Stressed F	nd 4B) or (C1) os along L I Iron (C4) n in Tilled Plants (D1)	iving Root Solls (C6)	Secor — W — D — S — S — S (C3) — G — F — R	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainege Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ct eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
YDROLOGY Vetland Hydroid Inimary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or (I Iron Deposits Surface Soll (I Inundation Vis	ogy Indicators: s (minimum of one) er (A1) Table (A2) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Im	e required:	check all that apply Water-Stain MLRA 1 Sall Crust ( Aquatic Inv Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl	ned Leave , 2, 4A, an B11) ertebrates Sulfide Od- nizosphere f Reduced Reductio Stressed F	nd 4B) or (C1) os along L I Iron (C4) n in Tilled Plants (D1)	iving Root Solls (C6)	Secor — W — D — S — S — S (C3) — G — F — R	dary Indicators (2 or more required) (ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) (rainage Patterns (B10) (ry-Season Water Table (C2) (aturation Visible on Aerial Imagery (C4) (eomorphic Position (D2) (hallow Aquitard (D3) (hallow Acuter Test (D5)
YDROLOGY Vetland Hydroic Primary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or (C Iron Deposits Surface Soil (C Inundation Vis	ogy Indicators: s (minimum of one) er (A1) Table (A2) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Impetated Concave	e required:	check all that apply Water-Stain MLRA 1 Sall Crust ( Aquatic Inv Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl	ned Leave , 2, 4A, an B11) ertebrates Sulfide Od- nizosphere f Reduced Reductio Stressed F	nd 4B) or (C1) os along L I Iron (C4) n in Tilled Plants (D1)	iving Root Solls (C6)	Secor — W — D — S — S — S (C3) — G — F — R	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainege Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ct eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
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YDROLOGY Vetland Hydroic Primary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or (C Iron Deposits Surface Soil (C Inundation Vis Sparsely Veg	ogy Indicators: s (minimum of one) er (A1) Table (A2) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Impetated Concave ins: esent? Yes	e required: agery (B7) Surface (B8	check all that apply  Water-Stain  MLRA:1  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized Ri  Presence o  Recent Iron  Stunted or S  Other (Expl.)	ned Leave , 2, 4A, and B11) ertebrates Sulfide Odinizosphere f Reduced Reductio Stressed F ain in Ren	nd 4B)  i (B13)  or (C1)  es along L  i Iron (C4)  n in Tilled  Plants (D1)  narks)	iving Root Solls (C6)	Secor — W — D — S — S — S (C3) — G — F — R	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainege Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ct eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
YDROLOGY Vetland Hydroic Primary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or (C Iron Deposits Surface Soll (C Inundation Vis Sparsely Veg	ogy Indicators: s (minimum of one) er (A1) Table (A2) 33) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Impetated Concave ins: essent? Yesent? Yesent?	e required: agery (B7) Surface (B8	check all that apply  Water-Stain  MLRA 1  Sall Crust (  Aquatic Inv  Hydrogen S  Oxidized Ri  Presence o  Recent Iron  Stunted or S  Other (Expl	ned Leave , 2, 4A, and B11) ertebrates Sulfide Odinizosphere f Reduced Reductio Stressed Fain in Renues):  nes):  nes):	nd 4B) (B13) or (C1) es along L I Iron (C4) n in Tilled Plants (D1 narks)	iving Root Soils (C6) ) (LRR A)	Secor  W  D  D  Ss (C3)  G  F  R  F	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ct eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
YDROLOGY Vetland Hydroid Inimary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or ( Iron Deposits Surface Soil ( Inundation Vis Sparsely Veg eld Observation urface Water Presentation P	ogy Indicators: s (minimum of one) er (A1) Table (A2) .3) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Imetated Concave ins: esent? ent? Yes fringe)	e required: e required: Surface (B8)  Mos No	check all that apply  Water-Stain  MLRA 1  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized Ri  Presence o  Recent Iron  Stunted or S  Other (Expl	ned Leave , 2, 4A, and B11) ertebrates Sulfide Odinizosphere f Reduceto Reductio Stressed Fain in Ren mes); mes); mes);	nd 4B) i (B13) or (C1) es along L i Iron (C4) n in Tilled Plants (D1) narks)	iving Root Soils (C6) (LRR A)	Secon  W  D  S (C3)  G  R  Fr	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainege Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ct eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
YDROLOGY Vetland Hydroid Primary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or ( Iron Deposits Surface Soil ( Inundation Vis Sparsely Veg Vetla Observation Urface Water Presentation	ogy Indicators: s (minimum of one) er (A1) Table (A2) .3) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Imetated Concave ins: esent? ent? Yes fringe)	e required: e required: Surface (B8)  Mos No	check all that apply  Water-Stain  MLRA 1  Sall Crust (  Aquatic Inv  Hydrogen S  Oxidized Ri  Presence o  Recent Iron  Stunted or S  Other (Expl	ned Leave , 2, 4A, and B11) ertebrates Sulfide Odinizosphere f Reduceto Reductio Stressed Fain in Ren mes); mes); mes);	nd 4B) i (B13) or (C1) es along L i Iron (C4) n in Tilled Plants (D1) narks)	iving Root Soils (C6) (LRR A)	Secon  W  D  S (C3)  G  R  Fr	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ct eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Proposition of the proposition o	ogy Indicators: s (minimum of one) er (A1) Table (A2) .3) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Imetated Concave ins: esent? ent? Yes fringe)	e required:  agery (B7) Surface (B8	check all that apply  Water-Stain  MLRA 1  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized Ri  Presence o  Recent Iron  Stunted or S  Other (Expl	ned Leave , 2, 4A, and B11) ertebrates Sulfide Odinizosphere f Reduceto Reductio Stressed Fain in Ren mes); mes); mes);	nd 4B) i (B13) or (C1) es along L i Iron (C4) n in Tilled Plants (D1) narks)	iving Root Soils (C6) (LRR A)	Secon  W  D  S (C3)  G  R  Fr	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ct eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)

Sampling Point: \_\_\_\_\_\_\_\_\_\_

Donth Mariely	Doday	Features	nfirm the absence	111
Depth Matrix (inches) Color (moist)	% Color (moist)	% Type Loc	<sup>2</sup> Texture	Remarks
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	0=10 110	EIA OI	1000	
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17	DATE DE LE COMPANIE COM	Causand as Castad Con	d Crains \$1 as	policy. Displace Links As As As and
<sup>1</sup> Type: G=Concentration, D=Depletion Hydric Soil Indicators: (Applicable			u Grains. Loc	cation: PL=Pore Lining, M=Matrix. rs for Problematic Hydric Solis <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5			n Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S			Parent Material (TF2)
Black Histic (A3)		neral (F1) (except MLR,		/ Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Ma		Othe	er (Explain in Remarks)
Depleted Below Dark Surface (A1		, yar.		
Thick Dark Surface (A12)	Redox Dark Surfa		3Indicato	rs of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Su			nd hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depression	ns (F8)	unles	s disturbed or problematic.
Restrictive Layer (if present):				
Type:				
Depth (inches):			Hydric Soll	Present? Yes / No
- Contract of the contract of				
Netland Hydrology Indicators:	guirad: phack all that anniv)		Sanas	dany Indicators (2 or more required)
Vetland Hydrology Indicators: Primary Indicators (minimum of one rec				dary Indicators (2 or more required)
Vetland Hydrology Indicators:  Primary Indicators (minimum of one reconstructions)  Surface Water (A1)	Water-Staine	d Leaves (B9) (except		ater-Stained Leaves (B9) (MLRA 1, 2,
Vetland Hydrology Indicators:  rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2)	Water-Staine MLRA 1, 2	2, 4A, and 4B)	w	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Vetland Hydrology Indicators: rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Staine MLRA 1, : Salt Crust (B	2, 4A, and 4B) 11)	_ w	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10)
Vetland Hydrology Indicators:  rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2)	Water-Staine MLRA 1, : Salt Crust (B	2, 4A, and 4B)	_ w	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Vetland Hydrology Indicators:  rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Staine MLRA 1, 2 Salt Crust (B Aquatic Inver	2, 4A, and 4B) 11) tebrates (B13)	W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) y-Season Water Table (C2)
Vetland Hydrology Indicators: rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Staine MLRA 1, 2 Salt Crust (B) Aquatic Inver Hydrogen Su	2, 4A, and 4B) 11) tebrates (B13) Ifide Odor (C1)	W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) sturation Visible on Aerial Imagery (C9)
Vetland Hydrology Indicators:  rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Staine MLRA 1, 3 Salt Crust (B' Aquatic Inver Hydrogen Su Oxidized Rhiz	2, 4A, and 4B) 11) tebrates (B13) tfide Odor (C1) cospheres along Living	W Dr Dr Sa Roots (C3) Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2)
Vetland Hydrology Indicators:  rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Staine MLRA 1, : Salt Crust (B: Aquatic Inver Hydrogen Su Oxidized Rhiz	2, 4A, and 4B) 11) lebrates (B13) lfide Odor (C1) cospheres along Living l Reduced Iron (C4)	W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) y-Season Water Table (C2) atturation Visible on Aeriai Imagery (C9) reomorphic Position (D2) railiow Aquitard (D3)
Vetland Hydrology Indicators:  Irimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Staine MLRA 1, 2 Salt Crust (B' Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F	2, 4A, and 4B) 11) tebrates (B13) Ifide Odor (C1) cospheres along Living I Reduced Iron (C4) Reduction in Tilled Solls	W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) attration Visible on Aerial Imagery (C9) reomorphic Position (D2) railiow Aquitard (D3) AC-Neutral Test (D5)
Vetland Hydrology Indicators: rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Staine MLRA 1, 2 Salt Crust (B) Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F	2, 4A, and 4B) 11) tebrates (B13) Ifide Odor (C1) cospheres along Living I Reduced Iron (C4) Reduction in Tilled Solls ressed Plants (D1) (LRI	W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) atturation Visible on Aerial Imagery (C9) reomorphic Position (D2) railiow Aquitard (D3) railiow Aquitard (D5) raised Ant Mounds (D6) (LRR A)
Vetland Hydrology Indicators:  rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager	Water-Staine MLRA 1, 2 Salt Crust (B) Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Str	2, 4A, and 4B) 11) tebrates (B13) Ifide Odor (C1) cospheres along Living I Reduced Iron (C4) Reduction in Tilled Solls	W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) attration Visible on Aerial Imagery (C9) reomorphic Position (D2) railiow Aquitard (D3) AC-Neutral Test (D5)
Vetland Hydrology Indicators: rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface	Water-Staine MLRA 1, 2 Salt Crust (B) Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Str	2, 4A, and 4B) 11) tebrates (B13) Ifide Odor (C1) cospheres along Living I Reduced Iron (C4) Reduction in Tilled Solls ressed Plants (D1) (LRI	W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) atturation Visible on Aerial Imagery (C9) reomorphic Position (D2) railiow Aquitard (D3) railiow Aquitard (D5) raised Ant Mounds (D6) (LRR A)
Vetland Hydrology Indicators:  rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfaceld Observations:	— Water-Staine  MLRA 1, 2  Salt Crust (B)  — Aquatic Inver  — Hydrogen Su — Oxidized Rhiz — Presence of F — Recent Iron F — Stunted or Starty (B7)  — Other (Explained)	2, 4A, and 4B) 11) 1tebrates (B13) Iffide Odor (C1) cospheres along Living (Reduced Iron (C4) Reduction in Tilled Solls ressed Plants (D1) (LRF	W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aeriai Imagery (C9) reomorphic Position (D2) railiow Aquitard (D3) railiow Aquitard (D5) raised Ant Mounds (D6) (LRR A)
Vetland Hydrology Indicators:  rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface Ind Observations: Unface Water Present?	Water-Staine MLRA 1, 2 Salt Crust (B) Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Str Ty (B7) Other (Explain Depth (inche	2, 4A, and 4B) 11) 1tebrates (B13) Ifide Odor (C1) cospheres along Living I Reduced Iron (C4) Reduction in Tilled Solls ressed Plants (D1) (LRI n in Remarks)	W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) reomorphic Position (D2) rallow Aquitard (D3) rallow Aquitard (D5) ralsed Ant Mounds (D6) (LRR A)
Vetland Hydrology Indicators:  Primary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfation (B4) Water Table Present?  Ves Ves Ves	Water-Staine MLRA 1, 2 Salt Crust (B' Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Str Other (Explain pee (B8)  No Depth (Inche	2, 4A, and 4B) 11) 1ebrates (B13) Iffide Odor (C1) cospheres along Living I Reduced Iron (C4) Reduction in Tilled Soils ressed Plants (D1) (LRI n in Remarks)	— W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) atturation Visible on Aerial Imagery (C9) reomorphic Position (D2) railiow Aquitard (D3) railiow Aquitard (D5) railiow And Mounds (D6) (LRR A) railiost-Heave Hummocks (D7)
Vetland Hydrology Indicators:  Primary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfatel Observations: urface Water Present? Ves Vater Table Present? Ves Includes capillary fringe)	Water-Staine MLRA 1, 2 Salt Crust (B' Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Str Other (Explain pace (B8)  No Depth (inche No Depth (inche	2, 4A, and 4B) 11) 1ebrates (B13) Iffide Odor (C1) cospheres along Living (Reduced Iron (C4) Reduction in Tilled Solls ressed Plants (D1) (LRF in in Remarks)  s):  s):  W	— W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) atturation Visible on Aerial Imagery (C9) reomorphic Position (D2) railiow Aquitard (D3) railiow Aquitard (D5) railiow Advitard (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface (B1) Vater Table Present? Vater Table Present? Ves	Water-Staine MLRA 1, 2 Salt Crust (B' Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Str Other (Explain pace (B8)  No Depth (inche No Depth (inche	2, 4A, and 4B) 11) 1ebrates (B13) Iffide Odor (C1) cospheres along Living (Reduced Iron (C4) Reduction in Tilled Solls ressed Plants (D1) (LRF in in Remarks)  s):  s):  W	— W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) atturation Visible on Aerial Imagery (C9) reomorphic Position (D2) railiow Aquitard (D3) railiow Aquitard (D5) railiow Advitard (D5)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface (Bild Observations: Surface Water Present? Ves	Water-Staine MLRA 1, 2 Salt Crust (B' Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Str Other (Explain pace (B8)  No Depth (inche No Depth (inche	2, 4A, and 4B) 11) 1ebrates (B13) Iffide Odor (C1) cospheres along Living (Reduced Iron (C4) Reduction in Tilled Solls ressed Plants (D1) (LRF in in Remarks)  s):  s):  W	— W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) atturation Visible on Aeriai Imagery (C9) reomorphic Position (D2) railiow Aquitard (D3) railiow Aquitard (D5) railiow Advitard (D5)
Vetland Hydrology Indicators:  Irimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface Water Present? Ves Vater Table Present? Ves Includes capillary fringe) escribe Recorded Data (stream gauge	Water-Staine MLRA 1, 2 Salt Crust (B' Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Str Other (Explain pace (B8)  No Depth (inche No Depth (inche	2, 4A, and 4B) 11) 1ebrates (B13) Iffide Odor (C1) cospheres along Living (Reduced Iron (C4) Reduction in Tilled Solls ressed Plants (D1) (LRF in in Remarks)  s):  s):  W	— W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) uturation Visible on Aerial Imagery (C9 eomorphic Position (D2) railiow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)

(inches) Color (moist) % Color (moist)	ent the indicator or confirm the absence of indicators.)  ( Features
-11 $a = Va = -1$ $+a$	% Type <sup>1</sup> Loc <sup>2</sup> Texture Remarks
0-16 215/2 25/1 100	Loamy, coarse
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS	=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
lydric Soil Indicators: (Applicable to all LRRs, unless others	
Histosol (A1) Sandy Redox (S	
Histic Epipedon (A2) Stripped Matrix (	
	lineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4) Loamy Gleyed N	Matrix (F2) Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Matrix	
Thick Dark Surface (A12) Redox Dark Surf	
Sandy Mucky Mineral (S1) Depleted Dark S	
Sandy Gleyed Matrix (S4) Redox Depression	ons (F8) unless disturbed or problematic.
lestrictive Layer (if present):	
Type:	
Depth (inches):	Hydric Soil Present? Yes No
POROLOGY Vetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply	Secondary Indicators (2 or more required)
	ned Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
	1, 2, 4A, and 4B) 4A, and 4B)
Saturation (A3) Salt Crust (	
==* ;;	rertebrates (B13) Dry-Season Water Table (C2)
	Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9
CIVILIDADE CONTROL CON	hizospheres along Living Roots (C3) Geomorphic Position (D2)
	of Reduced Iron (C4) Shallow Aquitard (D3)
Drift Deposits (B3) Oxidized RI	
Drift Deposits (B3) Oxidized RI Algal Mat or Crust (B4) Presence o	Reduction in Tilled Soils (C6) FAC-Neutral Test (D5)
Drift Deposits (B3)       Oxidized Ri         Algal Mat or Crust (B4)       Presence o         Iron Deposits (B5)       Recent Iron	Reduction in Tilled Soils (C6) FAC-Neutral Test (D5)  Stressed Plants (D1) (LRR A) Reised Ant Mounds (D6) (LRR A)
Drift Deposits (B3)       Oxidized Ri         Algal Mat or Crust (B4)       Presence o         Iron Deposits (B5)       Recent Iron         Surface Soil Cracks (B6)       Stunted or standard or s	Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A)
Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Oxidized Riversity of Research Iron  Recent Iron  Stunted or Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)	그리고 살아가 있었다고 있다고 있는 것은 살아서 그런 그리고 있다. 그리고 있다고 있는 그리고 있다고 있다고 있다고 있다고 있다.
Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Recent Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A)
Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Medical Research From Recent Iron  Stunted or Surface (B7)  Other (Expl	Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Oxidized Ri  Recent Iron  Stunted or Surface (B7)  Other (Expl	Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) thes):
Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Burface Water Present?  Ves No Depth (inc. Saturation Present? Yes No Depth (inc.)	Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Ves No Depth (inc. Saturation Present? Yes No Depth (inc. Saturation Present	Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Rhes):
Drift Deposits (B3) Oxidized Ri Algal Mat or Crust (B4) Presence o Iron Deposits (B5) Recent Iron Surface Soil Cracks (B6) Stunted or Surface Soil Cracks (B6) Other (Expl Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Depth (includes Capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial picks)  Remarks:	Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Rhes):
Drift Deposits (B3) Oxidized Ri Algal Mat or Crust (B4) Presence of Iron Deposits (B5) Recent Iron Surface Soil Cracks (B6) Stunted or Inundation Visible on Aerial Imagery (B7) Other (Expl.) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inc.) Vater Table Present? Yes No Depth (inc.) Saturation Present? Yes No Depth (inc.) Saturation Present? Yes No Depth (inc.) Saturation Present? Yes No Depth (inc.) Security Present Present? Yes No Depth (inc.)	Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)    Part
Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Ves No Depth (inc. Saturation Present? Yes No Depth (inc. Saturation Present Pr	Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A)

Depth inches)	Color	(moist)	%	Color	Redo: (moist)	%	Type	Loc2	Texture	Remarks
)- 6	5v	3/1	95		4/6	5	RM	М	clay loan	
-15	Colonal	3/5	80	-1 (	7/10 V	20	RM	M	racky clas	
	COCY I	1194		Gley 1	Thoy				TOCKY CHY	-
				-				-		*
ype: C=Cor								d Sand G		ocation: PL=Pore Lining, M=Matrix. tors for Problematic Hydric Soils <sup>3</sup> :
Histosol (	and the second	, (r.pp.,			dy Redox (S		ou.,			cm Muck (A10)
	ipedon (A:	2)			oped Matrix				_	ed Parent Material (TF2)
_ Black His		/			my Mucky N		1) (except	MLRA 1		ery Shallow Dark Surface (TF12)
Hydrogen	Sulfide (			Loa	my Gleyed I	Matrix (F2				her (Explain in Remarks)
		ark Surface	(A11)		leted Matrix				3,	Constitution of the Consti
Frick Dar Sandy Mu	rk Surface				ox Dark Sui					itors of hydrophytic vegetation and
_ Sandy Gl					leted Dark S ox Depress		(1)			land hydrology must be present, ess disturbed or problematic.
estrictive L										
			-	_						
									Hydric Sc	oil Present? Yes No
soil d	textur	es in	di cat	e pos	sible	histor	ric	+illiv		tur bance
DROLOG	Hextur 3Y rology In	dicators:					ric	+illiv	ng / alis	tur bance
DROLOG	SY rology in ators (min	dicators: imum of or		ed; check	all that apply	<i>(</i> )			ng / dis	ondary Indicators (2 or more required)
DROLOG etland Hydrimary Indica Surface V	GY rology In ators (min	dicators: imum of or		ed; check	all that apply Water-Stai	/) ned Leav	es (B9) (e		ng / dis	ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2
DROLOG etland Hydi imary Indica Surface V High Wati	GY rology In ators (min Vater (A1 er Table (	dicators: imum of or		ed; check	all that apply Water-Stai MLRA	/) ned Leav	es (B9) (e		ng / dis	ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2
DROLOG etland Hydi imary Indica Surface V High Wate	Frology In ators (min Water (A1 er Table ( n (A3)	dicators: imum of or		ed; check	all that apply Water-Stai MLRA Sait Crust	/) ned Leav 1, 2, 4A, a (B11)	es (B9) (e. and 4B)		ng / dis	ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10)
DROLOG etland Hydi imary Indica Surface V High Wate Saturation Water Ma	rology in ators (min Vater (A1 er Table ( n (A3) arks (B1)	dicators: imum of or ) A2)		ed; check	all that apply Water-Stai MLRA Salt Crust Aquatic Inv	/) ned Leav 1, 2, 4A, a (B11) rertebrate	es (B9) (e. and 4 <b>B)</b> s (B13)		ng / alis	ondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
DROLOG ettand Hydrimary Indica Surface V High Water Saturation Water Ma Sediment	rology In ators (min Water (A1 er Table ( n (A3) arks (B1)	dicators: imum of or ) A2)		ed; check	all that apply Water-Stai MLRA Salt Crust Aquatic Inv	ned Leav 1, 2, 4A, a (B11) vertebrate Sulfide Od	es (B9) (e. and 4B) s (B13) dor (C1)	xcept	Sec	ondary 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 (CS
DROLOG etland Hydrimary Indica Surface V High Water Saturation Water Mater Sediment Drift Depo	Tology In ators (min Water (A1 er Table (n (A3) arks (B1) t Deposits osits (B3)	dicators: imum of or ) A2)		ed; check	all that apply Water-Stai MLRA Sait Crust Aquatic Inv Hydrogen Oxidized R	ned Leav 1, 2, 4A, a (B11) vertebrate Sulfide Ochizosphe	es (B9) (e. and 4B) es (B13) dor (C1) res along	xcept	Sec	ondary 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 (CS) Geomorphic Position (D2)
DROLOG etland Hydrimary Indica Surface V High Water Saturation Water Ma Sediment Drift Depo	rology in ators (min Water (A1 rer Table (n (A3) rarks (B1) t Deposits osits (B3); or Crust	dicators: imum of or ) A2)		ed; check	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R	ned Leav 1, 2, 4A, a (B11) rertebrate Sulfide Or hizosphe of Reduce	es (B9) (e. and 4B) s (B13) dor (C1) res along	xcept Living Roo	Sec — — — — — — — — — — — — — — — — — — —	ondary 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 (CS Geomorphic Position (D2) Shallow Aquitard (D3)
DROLOG  etland Hydromary Indica Surface V High Water Saturation Water Ma Sediment Drift Depo	rology in ators (min Water (A1 per Table (n (A3) parks (B1) t Deposits (B3); or Crust posits (B5)	dicators: imum of or ) A2) (B2)		ed; check	all that apply Water-Stai MLRA Sait Crust Aquatic Inv Hydrogen Oxidized R	ned Leav 1, 2, 4A, a (B11) vertebrate Sulfide Od chizosphe of Reduce n Reducti	es (B9) (e. and 4B) s (B13) dor (C1) res along led iron (C4 on in Tilled	xcept Living Roo ) I Sails (Co	Sec 	ondary 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 (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
DROLOG etland Hydromary Indica Surface V High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation	rology In ators (min Mater (A1 er Table (n (A3) arks (B1) t Deposits (B3) cor Crust osits (B5) Soil Crack n Visible (cor Crust osits (B5)	dicators: imum of or ) A2) (B2) (B4) s (B6) on Aerial In	ne require	ed: check /	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of	ned Leav 1, 2, 4A, 2 (B11) vertebrate Sulfide Ochizosphe of Reducti Stressed	es (B9) (e. and 4B) s (B13) dor (C1) res along ed Iron (C4 on in Tilleo	xcept Living Roo ) I Sails (Co	Sec 	ondary 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 (CS Geomorphic Position (D2) Shallow Aquitard (D3)
PROLOGI Tetland Hydromary Indica Surface V High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely	rology In ators (min Mater (A1) er Table (n (A3) erks (B1) t Deposits (B3) for Crust osits (B5) Soll Crack n Visible (Vegetated	dicators: imum of or ) A2) (B2) (B4) s (B6) on Aerial In	ne require	ed: check /	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or	ned Leav 1, 2, 4A, 2 (B11) vertebrate Sulfide Ochizosphe of Reducti Stressed	es (B9) (e. and 4B) s (B13) dor (C1) res along ed Iron (C4 on in Tilleo	xcept Living Roo ) I Sails (Co	Sec 	ondary 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 (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
DROLOG  etland Hydrimary Indica Surface V High Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely eld Observe	rology in ators (min Water (A1) arks (B1) t Deposits (B3); or Crust osits (B5) Soll Crack: n Visible over ations:	dicators: imum of or ) A2) (B2) (B4) s (B6) on Aerial In d Concave	ne require nagery (I Surface	ed; check i	all that apply Water-Stai MLRA Salt Grust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leav 1, 2, 4A, a (B11) rertebrate Sulfide Or hizosphe of Reduce n Reducti Stressed lain in Re	es (B9) (e. and 4B) s (B13) dor (C1) res along led Iron (C4 on in Tilled Plants (D'	xcept Living Roo ) I Sails (Co	Sec 	ondary 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 (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
DROLOG  Tetland Hydromary Indicate  Surface V High Water Mater Mat	rology in ators (min Vater (A1) to Peposits (B3) to Crust posits (B5) Goll Crack in Visible (Vegetated ations:	dicators: imum of or ) A2) (B2) (B4) s (B6) on Aerial Ind Concave	nagery (I Surface	ed; check (	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leav 1, 2, 4A, a (B11) rertebrate Sulfide Od hizosphe of Reduce n Reducti Stressed lain in Re	es (B9) (e. and 4B) s (B13) dor (C1) res along (e. d) on in Tilled Plants (D)	Living Roo ) I Sails (Ci	Sec 	ondary 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 (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
DROLOG  Tetland Hydromary Indicate  Surface V High Water Mater Mat	rology In ators (min Vater (A1 er Table (A3) arks (B1) to Deposits (B3) to Crust posits (B5) Goll Crack on Visible (Vegetated ations: Present?	dicators: imum of or ) A2) (B2) (B4) s (B6) on Aerial in d Conceve ?	nagery (I Surface	ed; check	all that apply Water-Stai MLRA Salt Grust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leav 1, 2, 4A, 2 (B11) rertebrate Sulfide Ochizosphe of Reducti Stressed lain in Re	es (B9) (e. and 4B) es (B13) dor (C1) res along ed iron (C4 on in Tilled Plants (D'	Living Roo ) I Sails (Ci	Sec 	ondary 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 (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
PROLOGIVETION OF THE PROLOGIVE	rology in ators (min Water (A1) er Table (n (A3) erks (B1) to Deposits (B3) er Crust posits (B5) Soll Crack n Visible (vegetated ations: r Present? esent?	dicators: imum of or ) A2) (B2) (B4) s (B6) on Aerial in d Conceve Ye Ye	nagery (E Surface	ed; check i	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leav 1, 2, 4A, a (B11) rertebrate Sulfide Or chizosphe of Reduce n Reducti Stressed lain in Re ches):	es (B9) (e. and 4B) s (B13) dor (C1) res along (e. d) from (C4) on in Tilled Plants (D)	Living Roo ) d Sails (Ci 1) (LRR A	Sec 	ondary 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 (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
DROLOG  etland Hydromary Indicate  Surface V High Water Mater Mate	rology in ators (min Vater (A1) er Table (n (A3) arks (B1) to Deposits (B3) to Crust osits (B5) Soll Crack n Visible (vegetated ations: r Present? esent? ellary fringeorded Dat	dicators: imum of or ) A2) (B2) (B4) s (B6) on Aerial in d Concave Ye Ye ye a (stream (	nagery (I Surface us us gauge, m	ed; check in the second of the	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen: Oxidized R Presence of Recent Iron Stunted or Other (Exp Depth (inc	ned Leav 1, 2, 4A, a (B11) rertebrate Sulfide Or chizosphe of Reduce n Reducti Stressed lain in Re ches): ches):	es (B9) (e. and 4B) s (B13) dor (C1) res along (e. d) from (C4) on in Tilled Plants (D) emarks)	Living Roo ) I Sails (Ci 1) (LRR A	Second Se	ondary 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 (Cs Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
DROLOG etland Hydi imary Indica Surface V High Water Ma Sediment Drift Depot Algal Mat Iron Depot Surface S Inundation Sparsely eld Observer ater Table Paturation Pre- cludes capil escribe Reco	rology in ators (min Vater (A1) er Table (n (A3) arks (B1) to Deposits (B3) to Crust osits (B5) Soll Crack n Visible (vegetated ations: r Present? esent? ellary fringeorded Dat	dicators: imum of or ) A2) (B2) (B4) s (B6) on Aerial in d Concave Ye Ye ye a (stream (	nagery (I Surface us us gauge, m	ed; check in the second of the	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen: Oxidized R Presence of Recent Iron Stunted or Other (Exp Depth (inc	ned Leav 1, 2, 4A, a (B11) rertebrate Sulfide Or chizosphe of Reduce n Reducti Stressed lain in Re ches): ches):	es (B9) (e. and 4B) s (B13) dor (C1) res along (e. d) from (C4) on in Tilled Plants (D) emarks)	Living Roo ) I Sails (Ci 1) (LRR A	Second Se	ondary 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 (CS Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

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3	•	

Profile Des Depth	Matrix		Red	ox Feature	es			
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	_Loc2	Texture	Remarks
0-6	10 YR 3/1	100					Loamy	
6-14	10YR 4/1-	90	10 YR 3/3	10	P	1/	-	
2	10/1/		10/10/1/	10		101	-	
	. —	-			.—			
	•						-	
Longo				-				
	Concentration, D=Dep					d Sand G		ation: PL=Pore Lining, M=Matrix.
	Indicators: (Applic	able to all			ted.)			s for Problematic Hydric Soils <sup>3</sup> :
_ Histosc			Sandy Redox					Muck (A10)
THE RESERVE OF THE PARTY OF THE	pipedon (A2)		Stripped Matri		43.7			Parent Material (TF2)
	listic (A3) en Sulfide (A4)		Loamy Mucky			MLRA 1)		Shallow Dark Surface (TF12)
	ed Below Dark Surfac	e (A11)	Loamy Gleyed Depleted Matr		۷)		Othe	r (Explain in Remarks)
	ark Surface (A12)	(Mil)	Redox Dark S		1		Indicator	s of hydrophytic vegetation and
	Mucky Mineral (S1)		Depleted Dark					id hydrology must be present,
	Gleyed Matrix (S4)		Redox Depres					disturbed or problematic.
A STATE OF THE PARTY OF THE PAR	Layer (if present):		- INGEL BINGS					The state of problem and
Type:								/
Depth (ir	nches):						Hydric Soil I	Present? Yes V No
	OGY							
	drology Indicators:							
YDROLC Vetland Hy Primary Indi	rdrology Indicators: cators (minimum of o	ne required						dary Indicators (2 or more required)
YDROLC Vetland Hy Primary Indi Surface	rdrology Indicators: cators (minimum of o Water (A1)	ne required			ves (B9) (e)	cept	Secon	
YDROLC Vetland Hy Irimary Indi Surface High W	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2)	ne required	✓ Water-Sta			ccept	Secon	
OROLO Vetland Hy rimary Indi Surface High W Saturati	rdrology Indicators: icators (minimum of o Water (A1) ater Table (A2) ion (A3)	ne required	✓ Water-Str MLRA	ained Leav	and 4B)	cept	Second	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
YDROLO Vetland Hy rimary Indi Surface High W Saturati Water M	rdrology Indicators: icators (minimum of o water (A1) ater Table (A2) ion (A3) Marks (B1)	ne required	✓ Water-Str MLRA Salt Crus	ained Leav 1, 2, 4A,	and 4B)	cept	Second William	ater-Stained Leaves (B9) (MLRA 1, 2,
YDROLO Vetland Hy rimary Indi  Surface High W Saturati  Water M Sedime	rdrology Indicators: icators (minimum of o water (A1) ater Table (A2) ion (A3) flarks (B1) nt Deposits (B2)	ne required	✓ Water-Standard Water-Standard Water-Standard Crus  Salt Crus Aquatic In	ained Leav 1, 2, 4A, 1 (B11)	and 48) es (B13)	ccept	Second Will Dr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)
CDROLC Vetland Hy rimary Indi Surface High W Saturati Water M Sedime Drift De	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3)	ne required	✓ Water-Str MLRA — Salt Crus — Aquatic Ir — Hydroger	ained Leav 1, 2, 4A, t (B11) nvertebrate Sulfide O	and 48) es (B13)		Second Will Dr Dr Dr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)
YDROLO  Vetland Hy  Irimary Indi  Surface  High W  Saturati  Water M  Sedime  Drift De  Algal M	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	ne required	Water-Standard MLRA Salt Crus Aquatic in Hydroger Oxidized	ained Leav 1, 2, 4A, t (B11) nvertebrate Sulfide O Rhizosphe	and 48) es (B13) dor (C1)	_iving Roc	Second Wi Dr Dr Sa ots (C3) Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9
YDROLO Vetland Hy Irimary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De	rdrology Indicators: icators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ne required	Water-Standard Water-Wat	ained Leav 1, 2, 4A, t (B11) nvertebrate Sulfide O Rhizosphe of Reduce	and 48) es (B13) dor (C1) eres along l	_iving Roc	Second Wa Dr Dr Sa ots (C3) Ge Sh	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) attraction Visible on Aerial Imagery (C9 attraction (D2)
YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface	rdrology Indicators: reators (minimum of or Water (A1) ater Table (A2) rion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)		Water-Standard Water-	ained Leaver 1, 2, 4A, t (B11) invertebrate a Sulfide O Rhizosphe of Reduction Reduction Stressed	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D'	Living Roc ) I Salls (C6	Second Wi Dr Dr Sa ots (C3) Ge Sh	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) attraction Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3)
YDROLO Vetland Hy Irimary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface	rdrology Indicators: rcators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aerial II	magery (B7	Water-Standard Water-	ained Leav 1, 2, 4A, t (B11) overtebrate Sulfide O Rhizosphe of Reduce on Reducti	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D'	Living Roc ) I Salls (C6	Second Wi Dr Dr Sa ots (C3) Ge Sh s) FA s) Ra	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5)
YDROLC Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aerial In	magery (B7	Water-Standard Water-	ained Leaver 1, 2, 4A, t (B11) invertebrate a Sulfide O Rhizosphe of Reduction Reduction Stressed	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D'	Living Roc ) I Salls (C6	Second Wi Dr Dr Sa ots (C3) Ge Sh s) FA s) Ra	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) sturation Visible on Aerial Imagery (C9) comorphic Position (D2) sallow Aquitard (D3) sC-Neutral Test (D5) tised Ant Mounds (D6) (LRR A)
YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel	rdrology Indicators: reators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aerial In y Vegetated Concave	magery (B) s Surface (B	Water-Sta  MLRA  Salt Crus  Aquatic Ir  Hydroger  Oxidized  Presence  Recent Ir  Stunted of  Other (Ex	ained Leaver 1, 2, 4A, 1 (B11)  Invertebrate Sulfide O Rhizosphe of Reduce on Reduction Reductio	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D'	Living Roc ) I Salls (C6	Second Wi Dr Dr Sa ots (C3) Ge Sh s) FA s) Ra	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) sturation Visible on Aerial Imagery (C9) comorphic Position (D2) sallow Aquitard (D3) sC-Neutral Test (D5) tised Ant Mounds (D6) (LRR A)
YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Ield Obser	rdrology Indicators: reators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aerial In y Vegetated Concave rvations:	magery (B7 Surface (B	Water-Sta  MLRA  Salt Crus  Aquatic Ir  Hydroger  Oxidized  Presence  Recent In  Stunted of  Other (Ex	ained Leaver 1, 2, 4A, 1 (B11) invertebrate Sulfide O Rhizosphe of Reduction	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D'	Living Roc ) I Salls (C6	Second Wi Dr Dr Sa ots (C3) Ge Sh s) FA s) Ra	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) sturation Visible on Aerial Imagery (C9) comorphic Position (D2) sallow Aquitard (D3) sC-Neutral Test (D5) tised Ant Mounds (D6) (LRR A)
YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Ield Obser urface Water Table	rdrology Indicators: rcators (minimum of or r Water (A1) ater Table (A2) rion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) rion Visible on Aerial In ry Vegetated Concave rvations: rer Present?	magery (B7 Surface (B es I	Water-Sta  MLRA  Salt Crus  Aquatic Ir  Hydroger  Oxidized  Presence  Recent In  Stunted of  Other (Ex	ained Leaver 1, 2, 4A, 1, 2, 4A, 1, 4 (B11) Invertebrate a Sulfide O Rhizosphe of Reduction Reduction Reduction Reduction Reduction Reduction Stressed plain in Reduction Reduction Stressed plain in Reduction Reductio	and 4B) es (B13) dor (C1) eres along l ed Iron (C4) ion in Tilled Plants (D' emarks)	Living Roc )   Soils (C6  ) (LRR A	Second Wi Dr Sa ots (C3) Ge Sh (i) FA (i) Ra Fro	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9 amorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) bised Ant Mounds (D6) (LRR A) pst-Heave Hummocks (D7)
YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Ield Obser urface Water Table aturation P	rectors (minimum of on twater (A1) atter Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aerial In y Vegetated Concave (wations: ter Present? Present?	magery (B7 Surface (B es 1	Water-Sta  MLRA  Salt Crus  Aquatic Ir  Hydroger  Oxidized  Presence  Recent In  Stunted of  Other (Ex	ained Leaver 1, 2, 4A, 1, 2, 4A, 1, 4 (B11) Invertebrate a Sulfide O Rhizosphe of Reduction Reduction Reduction Reduction Reduction Reduction Stressed plain in Reduction Reduction Stressed plain in Reduction Reductio	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D'	Living Roc )   Soils (C6  ) (LRR A	Second Wi Dr Sa ots (C3) Ge Sh (i) FA (i) Ra Fro	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) sturation Visible on Aerial Imagery (C9) comorphic Position (D2) sallow Aquitard (D3) sC-Neutral Test (D5) tised Ant Mounds (D6) (LRR A)
YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Ield Obser urface Water Table aturation P noludes ca	rdrology Indicators: rcators (minimum of or r Water (A1) ater Table (A2) rion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) rion Visible on Aerial In ry Vegetated Concave rvations: rer Present?	magery (Bi Surface (Bi es I	Water-Sta  MLRA  Salt Crus  Aquatic Ir  Hydroger  Oxidized  Presence  Recent Ir  Stunted of  Other (Ex	ained Leaver 1, 2, 4A, 1 (B11)  nvertebrate Sulfide O Rhizosphe of Reduce on Reduction Reduction Reduction Reduction Reduction Reduction Stressed plain in Reduction R	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D' emarks)	Living Roc ) I Sails (C6 I) (LRR A	Second Wide Dr Dr Sa Sts (C3) — Ge Sh Sh FA From	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (CS aomorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) bised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Ield Obser urface Water Table aturation P noludes ca	rdrology Indicators: reators (minimum of or r	magery (Bi Surface (Bi es I	Water-Sta  MLRA  Salt Crus  Aquatic Ir  Hydroger  Oxidized  Presence  Recent Ir  Stunted of  Other (Ex	ained Leaver 1, 2, 4A, 1 (B11)  nvertebrate Sulfide O Rhizosphe of Reduce on Reduction Reduction Reduction Reduction Reduction Reduction Stressed plain in Reduction R	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D' emarks)	Living Roc ) I Sails (C6 I) (LRR A	Second Wide Dr Dr Sa Sts (C3) — Ge Sh Sh FA From	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) amorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) bised Ant Mounds (D6) (LRR A) pst-Heave Hummocks (D7)
YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Ield Obser urface Water Table aturation P noludes ca	rdrology Indicators: reators (minimum of or r	magery (Bi Surface (Bi es I	Water-Sta  MLRA  Salt Crus  Aquatic Ir  Hydroger  Oxidized  Presence  Recent Ir  Stunted of  Other (Ex	ained Leaver 1, 2, 4A, 1 (B11)  nvertebrate Sulfide O Rhizosphe of Reduce on Reduction Reduction Reduction Reduction Reduction Reduction Stressed plain in Reduction R	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D' emarks)	Living Roc ) I Sails (C6 I) (LRR A	Second Wide Dr Dr Sa Sts (C3) — Ge Sh Sh FA From	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9 amorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) bised Ant Mounds (D6) (LRR A) pst-Heave Hummocks (D7)
YDROLC Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Ield Obset urface Wat Vater Table aturation P ncludes ca escribe Re	rdrology Indicators: reators (minimum of or r	magery (Bi Surface (Bi es I	Water-Sta  MLRA  Salt Crus  Aquatic Ir  Hydroger  Oxidized  Presence  Recent Ir  Stunted of  Other (Ex	ained Leaver 1, 2, 4A, 1 (B11)  nvertebrate Sulfide O Rhizosphe of Reduce on Reduction Reduction Reduction Reduction Reduction Reduction Stressed plain in Reduction R	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D' emarks)	Living Roc ) I Sails (C6 I) (LRR A	Second Wide Dr Dr Sa Sts (C3) — Ge Sh Sh FA From	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) amorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) bised Ant Mounds (D6) (LRR A) pst-Heave Hummocks (D7)
/DROLC /etland Hy rimary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel leld Obset urface Water Table atturation P noludes ca escribe Re	rdrology Indicators: reators (minimum of or r	magery (Bi Surface (Bi es I	Water-Sta  MLRA  Salt Crus  Aquatic Ir  Hydroger  Oxidized  Presence  Recent Ir  Stunted of  Other (Ex	ained Leaver 1, 2, 4A, 1 (B11)  nvertebrate Sulfide O Rhizosphe of Reduce on Reduction Reduction Reduction Reduction Reduction Reduction Stressed plain in Reduction R	and 4B) es (B13) dor (C1) eres along led Iron (C4) ion in Tilled Plants (D' emarks)	Living Roc ) I Sails (C6 I) (LRR A	Second Wide Dr Dr Sa Sts (C3) — Ge Sh Sh FA From	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) amorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) bised Ant Mounds (D6) (LRR A) pst-Heave Hummocks (D7)

Depth	Matrix			Feature	S			
	Color (moist)	%	Color (moist)	_%_	Type!	Loc <sup>2</sup>	Textu	reRemarks
0-1611 10	YR 3/1	95_	10YR4/3	5	ZM_	_M	Loann	<b>7</b>
-		-		-			-	
				-				
			educed Matrix, CS			d Sand Gra		<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
lydric Soll Indic	ators: (Applic	able to all L	Rs, unless other	vise not	ted.)		Ind	icators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)		-	_ Sandy Redox (S				_	2 cm Muck (A10)
Histic Epiped		-	Stripped Matrix (				_	Red Parent Material (TF2)
Black Histic (		+	Loamy Mucky M			MLRA 1)	-	Very Shallow Dark Surface (TF12)
Hydrogen Su			_ Loamy Gleyed M		2)			Other (Explain in Remarks)
	ow Dark Surfac	e (A11)	_ Depleted Matrix				2.40	
_ Thick Dark St			_ Redox Dark Surf					licators of hydrophytic vegetation and
	Mineral (S1)		_ Depleted Dark S					wetland hydrology must be present.
Sandy Gleyer		-	_ Redox Depression	ons (F8)				unless disturbed or problematic.
estrictive Layer	r (if present):							
Туре:		-						/
Depth (inches)	1						22 4 4	Soil Present? Yes No V
emarks:							Hydric	
Remarks:							Hydric	
Remarks: YDROLOGY Vetland Hydrolo	gy Indicators:		check all that apply	)				
Pemarks:  YDROLOGY  Vetland Hydrolo	gy Indicators: s (minimum of o				ves (B9) (e:	Kcept		Secondary Indicators (2 or more required)
YDROLOGY Vetland Hydrolo Irimary Indicators	gy Indicators: s (minimum of o		Water-Stair	ed Leav		xcept		Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2
YDROLOGY Vetland Hydrolo Vrimary Indicators Surface Wate High Water T	egy Indicators: s (minimum of o er (A1) able (A2)		Water-Stair MLRA 1	ed Leav		ксерt		Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2
YDROLOGY Vetland Hydrolo rimary Indicators Surface Wate High Water T Saturation (A:	gy Indicators: s (minimum of o er (A1) able (A2) 3)		Water-Stair MLRA 1 Salt Crust (	ned Leav , <b>2, 4A,</b> ; B11)	and 4B)	ĸcept		Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2  4A, and 4B)  Drainage Patterns (B10)
YDROLOGY Vetland Hydrolo rimary Indicators Surface Wate High Water T Saturation (A: Water Marks	gy Indicators: s (minimum of o er (A1) able (A2) 3) (B1)		Water-Stair MLRA 1 Salt Crust ( Aquatic Inve	ned Leav , <b>2, 4A,</b> B11) ertebrate	and 4B) es (B13)	ĸcept		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 Hydrolo rimary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment De	egy Indicators: s (minimum of o er (A1) able (A2) 3) (B1) posits (B2)		Water-Stair MLRA 1 Salt Crust (i Aquatic Invo Hydrogen S	ned Leav , <b>2</b> , <b>4A</b> , ; B11) ertebrate sulfide O	and 4B) es (B13) edor (C1)		S	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 (CS
YDROLOGY Vetland Hydrolo Vrimary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Dep	egy Indicators: s (minimum of o er (A1) able (A2) 3) (B1) posits (B2)		Water-Stair MLRA 1 Salt Crust (i Aquatic Invo Hydrogen S Oxidized Ri	ned Leav , <b>2, 4A</b> , B11) ertebrate Sulfide O nizosphe	es (B13) dor (C1) eres along	Living Roots	\$ (C3)	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 (CS)  Geomorphic Position (D2)
YDROLOGY Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Deposits Algal Mat or C	egy Indicators: s (minimum of o er (A1) fable (A2) 3) (B1) posits (B2) (B3) Crust (B4)		Water-Stair MLRA 1 Salt Crust (I Aquatic Invo Hydrogen S Oxidized Rh	ned Leav , <b>2, 4A,</b> B11) ertebrate sulfide O nizosphe f Reduce	es (B13) dor (C1) eres along ed Iron (C4	Living Roots	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)
YDROLOGY Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Deposits Algal Mat or C Iron Deposits	gy Indicators: s (minimum of o er (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5)		Water-Stair MLRA 1 Salt Crust ( Aquatic Invo Hydrogen S Oxidized Ri Presence o	ned Leave, 2, 4A, 1 B11) ertebrate sulfide O nizosphe Reduce Reduce	and 4B) es (B13) dor (C1) eres along ed Iron (C4) ion in Tilled	Living Roots ) t Soils (C6)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
YDROLOGY  Vetland Hydrolo  Vimary Indicators  Surface Wate  High Water T  Saturation (A:  Water Marks  Sediment Deposits  Algal Mat or C  Iron Deposits  Surface Soil (	egy Indicators: s (minimum of o er (A1) able (A2) 3) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6)	ne required;	Water-Stair MLRA 1 Salt Crust ( Aquatic Invo Hydrogen S Oxidized Rh Presence o Recent Iron	ned Leave, 2, 4A, 1811) B111) Britebrate Sulfide Onizosphe f Reduce Reducti	and 4B) es (B13) dor (C1) eres along ed Iron (C4) ion in Tilled I Plants (D	Living Roots ) t Soils (C6)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
YDROLOGY  Vetland Hydrolo  Vimary Indicators  Surface Wate  High Water T  Saturation (A:  Water Marks  Sediment Deposits  Algal Mat or (Indicators)  Iron Deposits  Surface Soil (Indicators)	egy Indicators: s (minimum of o er (A1) sable (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial In	ne required; magery (B7)	Water-Stair MLRA 1 Salt Crust ( Aquatic Involution Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl	ned Leave, 2, 4A, 1811) B111) Britebrate Sulfide Onizosphe f Reduce Reducti	and 4B) es (B13) dor (C1) eres along ed Iron (C4) ion in Tilled I Plants (D	Living Roots ) t Soils (C6)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
YDROLOGY Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	egy Indicators: s (minimum of o er (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial in	ne required; magery (B7)	Water-Stair MLRA 1 Salt Crust ( Aquatic Involution Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl	ned Leave, 2, 4A, 1811) B111) Britebrate Sulfide Onizosphe f Reduce Reducti	and 4B) es (B13) dor (C1) eres along ed Iron (C4) ion in Tilled I Plants (D	Living Roots ) t Soils (C6)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
YDROLOGY Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	egy Indicators: s (minimum of o er (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial in etated Concave	magery (B7) Surface (B8	Water-Stair MLRA 1 Salt Crust ( Aquatic Invo Hydrogen S Oxidized Ri Presence of Recent Iron Stunted or S Other (Expl	ned Leav , 2, 4A, B11) ertebrate Sulfide O nizosphe f Reduce Reducti Stressed aln in Re	es (B13) dor (C1) eres along ed Iron (C4 ion in Tilled I Plants (D	Living Roots ) I Soils (C6) (LRR A)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
YDROLOGY  Vetland Hydrolo  Vimary Indicators  Surface Wate  High Water T  Saturation (A:  Water Marks  Sediment Deposits  Algal Mat or C  Iron Deposits  Surface Soil C  Inundation Via  Sparsely Vegiter of the contract of t	egy Indicators: s (minimum of or (A1) able (A2) 3) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial lietated Concave	magery (B7) Surface (B8	Water-Stair MLRA 1 Salt Crust ( Aquatic Invo Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl	ned Leav., 2, 4A, B11) entebrate sulfide O nizosphe f Reduce Reducti Stressed ain in Re	es (B13) dor (C1) eres along ed Iron (C4 ion in Tilled I Plants (D	Living Roots ) d Soils (C6) (LRR A)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
YDROLOGY  Vetland Hydrolo  Vimary Indicators  Surface Wate  High Water T  Saturation (A:  Water Marks  Sediment Deposits  Algal Mat or C  Iron Deposits  Surface Soll C  Inundation Via  Sparsely Vegilield Observation  urface Water Preservator Table Preservator	egy Indicators: s (minimum of o er (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial li etated Concave ns: esent? yeent?	magery (B7) Surface (B8	Water-Stair MLRA 1 Salt Crust (i Aquatic Invo Hydrogen S Oxidized Ri Presence of Recent Iron Stunted or S Other (Expl	ned Leave, 2, 4A, B11) ertebrate Sulfide Onizosphe f Reducti Stressed ain in Re	and 4B) es (B13) dor (C1) eres along ed Iron (C4 ion in Tilled I Plants (D	Living Roots ) d Soils (C6) 1) (LRR A)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
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YDROLOGY  Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Veg Veter Table Presentation	egy Indicators: s (minimum of or (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial inetated Concave ns: esent? Yeart? Yeart? Yeart?	magery (B7) Surface (B8 es No	Water-Stair MLRA 1 Salt Crust (i Aquatic Invo Hydrogen S Oxidized Ri Presence of Recent Iron Stunted or S Other (Expl	ned Leav.  2, 4A,  B11)  entebrate  sulfide O  nizosphe f Reduct Reduct Stressed ain in Re  nes):  nes):  nes):	es (B13) dor (C1) eres along ed Iron (C4 ion in Tilled I Plants (D	Living Roots ) d Soils (C6) 1) (LRR A)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
YDROLOGY  Vetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A: Water Marks Sediment Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Veg Veter Table Presentation	egy Indicators: s (minimum of or (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial inetated Concave ns: esent? Yeart? Yeart? Yeart?	magery (B7) Surface (B8 es No	Water-Stair MLRA 1 Salt Crust ( Aquatic Invo Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl ) Depth (Incl	ned Leav.  2, 4A,  B11)  entebrate  sulfide O  nizosphe f Reduct Reduct Stressed ain in Re  nes):  nes):  nes):	es (B13) dor (C1) eres along ed Iron (C4 ion in Tilled I Plants (D	Living Roots ) d Soils (C6) 1) (LRR A)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
YDROLOGY Vetland Hydrolo Primary Indicators Surface Water High Water T Saturation (A: Water Marks Sediment Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vegilield Observation Uniface Water Presentation Presentation Presentation Presentation Presentation Recorder Veter Technological Presentation Pre	egy Indicators: s (minimum of or (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial inetated Concave ns: esent? Yeart? Yeart? Yeart?	magery (B7) Surface (B8 es No	Water-Stair MLRA 1 Salt Crust ( Aquatic Invo Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl ) Depth (Incl	ned Leav.  2, 4A,  B11)  entebrate  sulfide O  nizosphe f Reduct Reduct Stressed ain in Re  nes):  nes):  nes):	es (B13) dor (C1) eres along ed Iron (C4 ion in Tilled I Plants (D	Living Roots ) d Soils (C6) 1) (LRR A)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
YDROLOGY Vetland Hydrolo Primary Indicators Surface Water High Water T Saturation (A: Water Marks Sediment Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vegilield Observation Uniface Water Presentation Presentation Presentation Presentation Presentation Recorder Veter Technological Presentation Pre	egy Indicators: s (minimum of or (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial inetated Concave ns: esent? Yeart? Yeart? Yeart?	magery (B7) Surface (B8 es No	Water-Stair MLRA 1 Salt Crust ( Aquatic Invo Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl ) Depth (Incl	ned Leav.  2, 4A,  B11)  entebrate  sulfide O  nizosphe f Reduct Reduct Stressed ain in Re  nes):  nes):  nes):	es (B13) dor (C1) eres along ed Iron (C4 ion in Tilled I Plants (D	Living Roots ) d Soils (C6) 1) (LRR A)	s (C3)	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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)