## DRAFT Environmental Assessment Racetrack Pond Fishing Access Site and Habitat Improvement Project

August 3, 2017



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### **ACRONYMS/ABBREVIATIONS**

Acronyms/Abbreviations	Definition
ACOE	U.S. Army Corps of Engineers
ADA	U.S. Americans with Disabilities Act
ARM	Administrative Rules of Montana
BMP	Best Management Practice
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
FAS	Fishing Access Site
FEMA	Federal Emergency Management Agency
FWP	Fish, Wildlife and Parks
FWS	U.S. Fish and Wildlife Service
GGTU	George Grant Chapter of Montana Trout Unlimited
MCA	Montana Code Annotated
MDEQ	Montana Department of Environmental Quality
MEPA	Montana Environmental Policy Act
MTNHP	Montana Natural Heritage Program
NRDP	Natural Resource Damage Program
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
SHPO	State Historic Preservation Office
SOC	Species of Concern
SPCC	Spill Prevention, Control, and Countermeasure
SWPPP	Storm Water Pollution Prevention Plan



### **1.0 PROPOSED ACTION DESCRIPTION**

### **1.1 TYPE OF PROPOSED ACTION**

The Montana Department of Fish, Wildlife and Parks (FWP) in cooperation with the Montana Natural Resource Damage Program (NRDP) proposes to improve the Racetrack Pond Area near Racetrack, Montana, for the purpose of developing the area into a fishing access site (FAS). The proposed FAS developments include access roads, walking trails, boat launch, parking area including U.S. Americans with Disabilities Act (ADA) accessible parking, an ADA latrine and an ADA fishing access platform. Habitat improvements include regrading of the pond area for the purpose of increasing the quality of shoreline vegetation, wetlands, waterfowl habitat, and aquatic habitat.

### **1.2 AGENCY AUTHORITY FOR THE PROPOSED ACTION**

The proposed action is being undertaken by FWP in cooperation with the NRDP. The NRDP will be responsible for implementing the construction activities of the proposed action. FWP will be responsible for the ownership, operation and maintenance of the proposed action once constructed.

The 1977 Montana Legislature enacted Section 87-1-605, Montana Code Annotated (MCA), which directs Montana Fish Wildlife and Parks (FWP) to acquire, develop and operate a system of fishing accesses. The legislature earmarked a funding account to ensure that the fishing access site program would be implemented. Section 87-1-303, MCA, authorizes the collection fees and charges for the use of fishing access sites, and contains rule-making authority for their use, occupancy, and protection. Furthermore, Section 23-1-110, MCA, and Administrative Rules of Montana (ARM) 12.2.433 guides public involvement and comment for the improvements at state parks and fishing access sites, which this document provides.

ARM 12.8.602 requires FWP to consider the wishes of the public, the capacity of the site for development, environmental impacts, long-range maintenance, protection of natural features and impacts on tourism as these elements relate to development or improvement to fishing access sites or state parks. This document will illuminate the facets of the Proposed Action in relation to this rule. See Appendix A for HB 495 qualification checklist.

The proposed action contributes to implementation of State of Montana's Revised Restoration Plan for the Clark Fork River Aquatic and Riparian Resources, Section 4.0 (NRDP 2007) and State of Montana's Final Upper Clark Fork River Basin Aquatic and Terrestrial Resource Restoration Plans, Section 5.2.1.(NRDP 2016).

### **1.3 NAME OF PROJECT**

Racetrack Pond Fishing Access Site and Habitat Improvement Project

### **1.4 PROJECT SPONSORS**

Montana Department of Fish, Wildlife and Parks, Region 2 3201 Spurgin Road Missoula, MT 59804

Montana Natural Resource Damage Program 1720 9<sup>th</sup> Avenue Helena, MT 59620





### **1.5 ANTICIPATED SCHEDULE**

Table 1 below presents the anticipated project schedule.

#### Table 1. Racetrack Pond FAS and Habitat Improvement Project Anticipated Schedule

Task	Date
Public Comment Period:	August 4, 2017 –September 4, 2017
Public Meeting:	August 17, 2017
Estimated Decision Notice:	September 2017
Estimated Commencement Date:	October 2017
Estimated Completion Date:	Spring 2018
Current Status of Project Design (% complete):	30%

### **1.6 LOCATION AFFECTED BY THE PROPOSED ACTION**

Racetrack Pond is located adjacent to the Clark Fork River off Interstate 90 at exit 195 along West River Road near Racetrack, Powell County, Montana, Section 16, Township 06 North, Range 9 West. The area affected by the Proposed Action includes the pond, the pond shoreline and surrounding uplands, the current outlet channel that leads to the Clark Fork River, and an adjacent hayfield. **Sheet G01 - Cover** presents a location map, and **Sheet C01 – Racetrack Pond Site Plan** presents a site plan.

### **1.7 PROJECT SIZE**

This Proposed Action encompasses 78 acres of water, wetland, shoreline, and upland habitat (Sheet C07 – Existing Vegetation Communities).

### **1.8 PHYSICAL AND HISTORICAL BACKGROUND**

Racetrack Pond was originally created as a borrow pit for road fill when Interstate 90 was constructed in the 1960s and 1970s. Some effort was made by the Montana Department of Highways (currently the Montana Department of Transportation) to reclaim it for habitat, including a small island and peninsula, but much of the shoreline consists of steep linear banks. A small, perennially flowing, approximately 350-foot outlet channel was originally constructed in the northeast portion of the pond, which drains directly to the Clark Fork River.

The Racetrack Pond property was acquired by the State of Montana through an Upper Clark Fork River Basin Restoration Program grant sponsored by the George Grant Chapter of Montana Trout Unlimited (GGTU). The Montana Department of Environmental Quality (MDEQ) currently holds title to the property. The acquisition was to replace fishing and water sport activities lost due to the release of hazardous substances from historic mining and smelting activities and assist with the ability of the State (MDEQ and NRDP) to conduct remediation and restoration resulting in natural resource improvements to the property. Since purchase of the property by the State, debris and abandoned material has been removed from the site. In 2016, MDEQ developed an alluvium borrow source north of Racetrack Pond to use as general fill within the Clark Fork River Phase 5 & 6 Remedial Action Project. In addition, a haul road was constructed as part of remediation from West River Road to the borrow area. It is anticipated that, following FAS development and pond habitat improvements, the property would be transferred to FWP to be managed as a FAS.



In 2012, funds were allocated to FWP for FAS acquisition and development in the Upper Clark Fork River Basin Aquatic and Terrestrial Restoration Plans. These funds were allocated for FWP to acquire and develop up to 10 FASs within the upper Clark Fork River, including for this proposed project. In addition, funds from the Clark Fork River, River Restoration fund are allocated to enhance and improve aquatic and riparian habitat of the Clark Fork River. The proposed Racetrack Pond FAS and Habitat Improvement Project will be funded through these funding allocations.

Upon completion of this project, the property would be managed under existing FWP public use regulations. Management of the FAS would include routine maintenance, control of vehicles and firearms, and enforcement of other accepted FWP recreation area management activities. Protection of the natural resources, health and safety of visitors, and consideration of neighboring properties would be considered and incorporated into development plans for this site. The FAS would be for day-use only, and no overnight camping would be allowed on the site. Development of the Racetrack Pond FAS would provide public access for fishing, hunting, boating, and floating, as well as recreational opportunities for hiking, dog walking, picnicking, and wildlife viewing.

Racetrack Pond offers year-round fishing. Per the 2013 FWP fishing pressure survey, the Clark Fork River upstream of the confluence with the Little Blackfoot River at Garrison Junction (River Section 5) receives approximately 10,984 angler days per year and is 67<sup>th</sup> in the State for use. Racetrack Pond is stocked with game fish by FWP, which are known to escape through the existing outlet channel.

### **1.9 PROJECT SIZE**

Land use	Size (acres)
Developed Residential	0
Developed Industrial	0
Open Space/Woodlands/Recreation (entire site)	78
Wetlands/Riparian Areas	55
Floodplain (entire site)	78
Uplands	23
Productive: Irrigated cropland	0
Productive: Dry cropland	0
Productive: Forestry	0
Productive: Rangeland (proposed outlet channel)	2.5
Productive: Other	NA

#### Table 2. Project Size





### 1.10 FUNDING

The Proposed Action is being funded by the NRDP using funds from the Restoration Fund allocated in the Upper Clark Fork River Basin Aquatic and Terrestrial Resources Restoration Plans, 2016 and the Clark Fork River Restoration Fund through the Revised Restoration Plan for the Clark Fork River Aquatic and Riparian Resources, 2007. These funds contain no taxpayer funds. Estimated costs are presented below:

Activity	Estimated Cost
Habitat Improvement	\$400,000
FAS Development	\$85,000
Total	\$485,00

#### Table 3. Project Funding

### 1.11 NARRATIVE DESCRIPTION OF THE PROPOSED ACTION

FWP in coordination with NRDP propose to improve the existing Racetrack Pond area with increased habitat and amenities for inclusion in FWP's system of FASs. Racetrack Pond is located west of the Clark Fork River at Racetrack, Montana, and approximately 8 miles south of the City of Deer Lodge. The legal description for the state-owned parcel in which the site resides is Section 16, Township 6 North, Range 9 West, West 100' NW4NW4, West 100'N2SW4NW4, South 910' SW4NE4, S2S2NW4, NW4SE4, SW4NW4, NW4SE4, SW4.

Currently, the site is bound to the north by a soil berm created in 2016 during excavation of borrow material, to the east by a haul road, to the south by the adjacent property boundary, and to the west by the West Side Irrigation Canal. Steep banks with limited wetland area characterizes most of the shoreline, and the north end where borrow material was excavated is completely stripped of organic soil and vegetation. The site functions as habitat for stocked fish and migrating waterfowl, but is generally underutilized for wetlands and recreation. The current pond outlet consists of an undersized culvert that flows into an approximately 350-foot linear constructed ditch that discharges into the Clark Fork River.

The Proposed Actions are presented on **Sheets C01 – Sheet D01**. The NRDP will be responsible for implementing the construction activities of the proposed action. The pond habitat upgrades include regrading approximately 170,000 cubic yards of material and reusing this material as fill resulting in a net zero design plan where no fill is required or left over upon project completion. It is anticipated that on-site stockpiled topsoil will be applied to the pond banks and upland areas to aid in vegetation establishment. **Sheet C07 – Design Habitat Features** and **Appendix E** present a description of design habitat type, estimated size and design criteria. The existing pond outlet will be upgraded to include a constructed fish barrier and relocation of the outlet channel to an approximately 1,900 foot meandering stream that creates wetland and aquatic habitat opportunities. The proposed FAS developments are shown on **Sheet C04 – Racetrack Pond Amenities Plan** and include access roads, walking trails, boat launch, parking area including ADA accessible parking, an ADA latrine and an ADA fishing access platform.

The pond is stocked annually by FWP with native westslope cutthroat trout and sterile rainbow trout. Other species present in the pond include: largescale sucker, brown trout, mountain whitefish, and yellow perch (J. Lindstrom, personal communication). Yellow perch were illegally introduced into Racetrack Pond at an unknown date and pose a threat to stocked fish as they compete for food and other resources. The perch also represent a source of fish for other possible illegal introductions. During dewatering of the pond, FWP personnel will capture



and remove as many illegally introduced and non-game fish as possible. Fish capture will be done either through electroshocking or use of nets, depending on water depths. After construction activities are complete, FWP will restock Racetrack Pond in spring 2018 with native westslope cutthroat trout and sterile rainbow trout.

### 1.12 PURPOSE AND NEED

### 1.12.1 Purpose

The purpose of the Proposed Action is to improve ecological functioning of the pond to include aquatic and waterfowl habitat, expand the existing wetlands along the shoreline and at the pond outlet, and develop the area into a FAS, including ADA accessible amenities.

### 1.12.2 Need

The Proposed Action allows for the development of the Racetrack Pond Fishing Access Site and habitat improvements, and contributes to implementation of State of Montana's Revised Restoration Plan for the Clark Fork River Aquatic and Riparian Resources, Section 4.0 (NRDP 2007) and State of Montana's Final Upper Clark Fork River Basin Aquatic and Terrestrial Resource Restoration Plans, Section 5.2.1. (NRDP 2016). This project will meet the goals of the Upper Clark Fork River Aquatic and Terrestrial Resources Restoration Plans, 2016, Section 5.0, and the Revised Restoration Plan for the Clark Fork River Aquatic and Riparian Resources, 2007, Section 3.0 by providing additional public access to the Clark Fork River and Racetrack Pond and development of the FAS.

### 1.12.3 Public and Agency Concerns

During a site visit an adjacent landowners voiced a concern that pond expansion and site improvements may alter the hydrology of the area. Other potential concerns include noise and the potential for spills and leaks of contaminants during construction. Section 3.0 addresses these concerns and provides an explanation of mitigation procedures that will be implemented.

### 1.12.4 Governmental Jurisdiction

The Proposed Action will require the following agency permit approvals prior to implementation:

- U.S. Army Corps of Engineers (ACOE), Section 404 of Federal Clean Water Act
- MDEQ Water Protection Bureau, Section 318 of the Water Quality Act, Short Term Water Quality Standards for Turbidity
- MDEQ Water Protection Bureau, General Permit for Storm Water Discharges Associated with Construction Activity
- FWP, Section 124 of the Stream Protection Act
- Powell County Conditional Use Permit
- Powell County Floodplain Permit
- Powell County Sanitation Permit

The appropriate permit applications will be submitted to the agencies listed above and construction activity will occur after the necessary approvals.

### 1.12.5 Public Review

Public notice, a public meeting, and public comment will be conducted as part of this Environmental Assessment (EA) and is presented in Section 5.0.





### 2.0 ALTERNATIVES

### 2.1 NO ACTION

If no action is taken and the 78 acres is not developed as a FAS, then the area would continue to be underutilized for ecological functioning and recreation. Invasive weeds have colonized much of the upland areas along the north and east shores of the pond. The shoreline lacks diverse vegetation communities, and the north end of the pond is almost entirely void of vegetation leaving open the opportunity for increased weed encroachment. The steep banks create unsafe public conditions. No Action would likely increase the spread of weeds, limit the ponds use by wildlife and the public, and would be a visual scar on the landscape adjacent to the Clark Fork River and Interstate Highway 90. No action would not require additional state or local funds; however, weed management would continue to be an issue and would have to be addressed by the MDEQ and future title holders.

### 2.2 PROPOSED ACTION

The Proposed Action is to restore Racetrack Pond to provide more shoreline vegetation, wetlands, waterfowl habitat, and aquatic habitat, as well as increase recreational access with ADA accessible amenities associated with the FAS. Improvements would include two deep water habitat areas, gentle sloping banks, a parking area, a boat launch, concrete vault latrine, protective fencing, a gravel walking trail, and ADA accessible fishing access platform. The Proposed Action would improve overall biological functioning of aquatic and waterfowl habitat and increase vegetation, which would prevent the spread of invasive weeds. The FAS amenities would increase access and use of the site. The financial burden associated with the FAS would include routine maintenance costs typical of other FASs in the area.

During construction NRDP would employ Best Management Practices (BMPs) **(Appendix B)**, which are designed to reduce or eliminate sediment delivery to waterways during construction. Dust control measure including watering to prevent nuisance dust during construction would be required. NRDP would develop the final design and specifications for the Proposed Action. All county, state and federal permits listed in Section 1.12.4 would be obtained by NRDP as required. A private contractor selected through the State's contracting processes would complete the construction.

### **3.0 ENVIRONMENTAL REVIEW**

The tables below summarize potential effects to the physical and human environments if the Proposed Action is implemented.

Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Soil instability or changes in geologic substructure?				Х		
B. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil			Х		Yes	4B.

Table 4	Potential	Impacts to	the Physical	Environment	<ul> <li>Land Resources</li> </ul>
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Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
which would reduce productivity or fertility?						
C. Destruction, covering or modification of any unique geologic or physical features?				Х		
D. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			Х		Yes	4D.
E. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?				Х		

#### Comments:

4B. During construction activities, temporary modifications to soil would cause disruption, displacement, erosion, and compaction. All slopes will be graded to promote stability. All disturbed areas will receive temporary erosion control BMPs during and after construction. All disturbed areas will be seeded and planted with containerized plants following construction to minimize erosion and the spread of noxious weeds. All seeding and planting will use native plants. The property currently serves as wildlife habitat with limited public recreation and is not in agricultural production. The Proposed Action would not affect soil productivity or fertility. FWP BMPs would be followed during all phases of construction to minimize erosion (Appendix B). The proposed actions in the long term would promote vegetation establishment and reduce overall erosion. Vegetation establishment would improve soil fertility over time.

4D. The Proposed Action habitat improvements will alter the bed and bank of the existing pond. The existing pond will be dewatered before any excavation or grading activities are started and the dewatering water will flow through a sediment detention pond prior to discharge into the Clark Fork River. Sedimentation of the Clark Fork River from dewatering activities is anticipated to be minimal. NRDP would obtain an MDEQ 318 Authorization Permit for Short Term Water Quality Standard for Turbidity, all requirements of the permit would be followed during construction. The Proposed Action aquatic habitat improvements include excavation of two deep water aquatic habitat areas (approximately 8 feet and 12 feet) below the existing bed of the pond. The proposed shoreline improvements include reducing the side slopes of the banks, creating wetland areas and planting native vegetation. Although there is disturbance to the bed and banks of the pond, the improvements are anticipated improve the quality of vegetation on the banks and reduce bank erosion. Overall the proposed actions would have long-term significant positive impacts to water quality, soil erosion, wildlife habitat and economic benefit.

The Proposed Action will be designed, so that material excavated to create the deep water aquatic habitat areas will be balanced with fill required to reduce the bank side slopes. Stockpiled topsoil will be applied to the pond banks and upland areas to aid in vegetation establishment.



Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Discharge into surface water or any alteration of surface water quality including, but not limited to, temperature, dissolved oxygen or turbidity?			Х		Yes	5A.
B. Changes in drainage patterns or the rate and amount of surface runoff?			Х		Yes	5B.
C. Alteration of the course or magnitude of flood water or other flows?				Х		
D. Changes in the amount of surface water in any water body or creation of a new water body?			Х		Yes, Positive	5D.
E. Exposure of people or property to water-related hazards such as flooding?				Х		
F. Changes in the quality of groundwater?				Х		
G. Changes in the quantity of groundwater?				Х		
H. Increase in risk of contamination of surface or groundwater?			Х		Yes	5H.
I. Effects on any existing water right or reservation?				Х		51.
J. Effects on other water users as a result of any alteration in surface or groundwater quality?				Х		
K. Effects on other users as a result of any alteration in surface or groundwater quantity?			Х			5K.
L. Will the project affect a designated floodplain?			Х			5L.

Table 5. Potential Impacts to the Physical Environment – Water
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Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
M. Will the project result in any discharge that will affect federal or state water quality regulations?			Х		Yes	5M.

#### Comments:

5A. The Proposed Action may cause surface water quality to be altered for temperature and turbidity. Temperature may be increased due to the type of outlet structure and increase in the length of the pond outlet channel. Currently, the outlet is a 10-inch culvert and an approximately 350-foot long, straight, 2-foot wide channel, and the Proposed Action replaces the existing structure with a fish barrier consisting of a concrete weir and creates an approximate 1,900-foot meandering channel with varying widths. The design includes the placement of shade vegetation to mitigate some of the effects of solar radiation on water temperature. Over time, shade cover from riparian vegetation is expected to increase as stands become more mature. Dewatering activities may cause a temporary, localized increase in turbidity in the Clark Fork River. NRDP would obtain an MDEQ 318 Authorization Permit for Short Term Water Quality Standard for Turbidity, all requirements of the permit would be followed during construction. Dewatering water would be required to pass through appropriately sized sediment detention ponds, and the discharge from these pond must visibly show a reduction in turbidity before it would be allowed to be discharged into the Clark Fork River.

5B. Construction of the FAS amenities, shown on **Sheet C04 – Racetrack Pond Amenities Plan**, may alter surface runoff direction. The Proposed Action would be designed to minimize any effect on surface water, surface runoff, and drainage patterns.

5D. The Proposed Action decreases the area of open water at Racetrack Pond by approximately 1.31 acres but does not change the water volume or water surface elevation. The regrading of the side slopes will increase the quality of the shoreline habitat. **Sheet C07 – Design Habitat Features** and **Appendix E** presents a description of design habitat type, estimated size and design criteria.

5H. The use of heavy equipment during construction may result in a slight risk of contamination from petroleum products and potentially a temporary increase in sediment delivery to the river. Contract documents will require the Contractor to provide and maintain primary containment of fuel stored in the Project Area and a designated vehicle fueling area within secondary containment. Fuel, oil, grease, hydraulic fluid, anti-freeze and other such materials shall be stored in one location within the staging area. All liquid materials shall be stored within a berm, plastic lined (minimum of 30 mil PVC) storage area with a capacity to contain 110 percent of the combined volume of stored liquids. Absorbent materials shall be on-site at all times for use in cleanup of spilled liquids. FWP's BMPs would be followed during all phases of construction to minimize these risks **(Appendix B)**.

5I. The Proposed Action aquatic habitat improvements include excavation of two deep water aquatic habitat areas (approximately 8 feet and 12 feet) below the existing bed of the pond. The excavated materials from the creating of the deep water aquatic habitat will be used to regrade the side slope and increase the quality of the shoreline habitat resulting in a net zero design plan where no fill is required or left over upon project completion. As a result the water volume and water surface elevation of the pond is not anticipated to change as a result of the Proposed Action.

5K. The dewatering activities associated with the Proposed Action would temporarily decrease groundwater quantity around the project area. These impacts are expected to be minor and temporary. Construction is



anticipated to occur in winter months, outside of irrigation season. Grading of the pond for the proposed habitat improvements is not anticipated to alter groundwater quantity.

5L. The Proposed Action is within a designated floodplain, as shown on the Federal Emergency Management Agency (FEMA) Map # 3000591550B, Map revised September 30, 1994. The Proposed Action is located within the 100-year floodplain, with a 1% annual chance of a flood hazard. The Proposed Action is not going to change the 100-year flood elevation or increase the risk of flooding to adjacent landowners. Permits from FWP, MDEQ, the ACOE, and Powell County will be obtained to insure that federal, state, and county floodplain and water quality regulations are followed.

5M. Dewatering activities and construction of the outlet channel may result in temporary turbidity discharges to the Clark Fork River. NRDP would obtain an MDEQ 318 Authorization Permit for Short Term Water Quality Standard for Turbidity, all requirements of the permit would be followed during construction.

Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Emission of air pollutants or deterioration of ambient air quality?			Х			6A.
B. Creation of objectionable odors?			Х			6B.
C. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?				X		
D. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?				Х		
E. Will the project result in any discharge which will conflict with federal or state air quality regulations?				Х		

#### Table 6. Potential Impacts to the Physical Environment – Air

#### Comments:

6A. Dust may be temporarily generated during grading of the pond and construction of the roads, trails, boat launch, and parking area. Dust control measure including watering to prevent nuisance dust during construction would be required. NRDP will follow the construction BMPs listed in **Appendix B** to minimize impacts to air quality. The Proposed Action would temporary increase diesel exhaust while excavators, dozers, haul trucks, and



other heavy equipment are operating. Diesel impacts will dissipate rapidly when construction ceases, and all impacts to air quality will be short term and minor.

6B. The concrete vault latrine will be designed to minimize objectionable odors and regularly maintained by FWP personnel.

Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			х		Yes	7A
B. Alteration of a plant community?			Х		Yes	7B
C. Adverse effects on any unique, rare, threatened, or endangered species?				х		7C
D. Reduction in acreage or productivity of any agricultural land?			х		Yes	7D
E. Establishment or spread of noxious weeds?			Х		Yes	7E
F. Will the project affect wetlands, or prime and unique farmland?			х		Yes	7F

#### Comments:

7A. A map of existing vegetation communities is provided in **Sheet C07 – Existing Vegetation Communities**. **Appendix D** provides a summary of existing vegetation community types and other land cover types in the project area. The pond occupies the largest portion of the project area and vegetated areas comprise approximately 28 percent of the project area. The site is characterized by disturbed conditions and upland herbaceous vegetation dominated by non-native species and is currently the most common vegetation community in the project area. Few scattered trees occur around the edges of the project area. Wetland shrub stands are located on the west side of Racetrack Pond and in the northern portion of the project area along a side channel of Clark Fork River. The mature shrub stands located on the peninsula will be preserved. Herbaceous wetlands occur around the edges of Racetrack Pond, along the pond's outlet channel, and in low elevation swales in the project area. A narrow fringe of aquatic bed vegetation occurs in portions of the shallow water zone on the west side of Racetrack Pond. Hayfields are present in the proposed outlet channel.

Grading within and around Racetrack Pond will increase the area of both aquatic and vegetated habitat in the project area. Existing wetland shrubs on the west side of the pond will be preserved. The Proposed Action will impact existing vegetation communities in the project area to varying extents; however, actions are expected to result in positive changes to plant species diversity, productivity, and abundance over time. The Proposed Action

is expected to have long term significant positive effects on the quality of vegetation in the project area. The table in **Appendix D** summarizes anticipated acres of impacts by vegetation community and other land cover types as a result of Proposed Action actions. The anticipated habitats and vegetation types expected to be created by the Proposed Actions are shown on **Sheet C08 – Design Habitats**.

7B. Sheet C07 – Existing Vegetation Communities provides a map of existing vegetation communities in the project area. The Proposed Actions will alter existing plant communities in all areas where excavation or material placement is proposed. Approximately 19.20 acres of existing vegetation will be affected by the Proposed Action (Appendix D), including increased native vegetation cover in the project area (Appendix E).

7C. Sources of existing information for threatened, endangered, or rare plant species included a data request from the MTNHP (MTNHP, 2017a) for Township 06 North, Range 09 West that includes the project area. The data request information was verified during the site visit on June 6 and 7, 2017. The MTNHP does not report any threatened or endangered plant species within the vicinity of the project area (MTNHP 2017a) and none were observed during the field visit.

The MTNHP reports one plant SOC in the vicinity of the project area, annual Indian paintbrush (*Castilleja exilis*) (MTNHP, 2017a). Annual Indian paintbrush is found in moist alkaline meadows in valleys and has a state rank of S2 for at risk because of very limited and/or potentially declining population numbers, range and/or habitat, making it vulnerable to global extinction or extirpation in the state, and a global rank of G5 for common, widespread, and abundant (although it may be rare in parts of its range). The state rank of S2 is largely due to population threats such as alterations to hydrology, impacts by invasive weeds, and land use changes (MTNHP 2017b). The species was not observed in the project area. No suitable habitat is present in the project area.

7D. The existing pond outlet will be relocated to the north end of the project area within an existing hayfield. The hayfield consists of a mix of wetland herbaceous species such as arctic rush and introduced pasture grasses, including smooth brome. There will be ground disturbance in the hayfield associated with building the outflow channel (approximately 0.2 acres).

7E. Noxious weed cover is low (less than five percent) in the project area and includes scattered populations of spotted knapweed (*Centaurea stoebe*) and Canada thistle (*Cirsium arvense*). Cheatgrass (*Bromus tectorum*), a regulated plant in Montana, is a dominant species in upland areas in the project area. The State's contract documents will require that all equipment to be washed and inspected prior to entering the project area. Prior to construction, noxious weed infestations will be documented. Grading activities will create disturbance and areas of bare soil that will be at risk of being colonized by noxious weeds. All disturbed areas that will not become parking areas or access paths will be seeded with native grasses and forbs. Weed control activities such as chemical application of herbicides have been ongoing and will continue post-project to facilitate the establishment of desired vegetation by limiting competition from weedy species.

7F. Wetlands in the project area were mapped in June 2017. Existing wetland areas and open water habitats are shown on **Sheet C07 – Existing Vegetation Communities**. The Proposed Action is expected to temporarily impact approximately 1.08 acres of wetland which will be subsequently restored. The Proposed Action is anticipated to have long term significantly positive impacts to the quality and quantity of wetland within the project area. Other temporary impacts would occur in association with pond expansion and grading, and pond outlet relocation. However, the overall impact of the Proposed Action will result in a zero decrease of wetland acres. A copy of the wetland delineation report is presented in **Appendix C**.

The project area is mapped as the Carten loam, zero to four percent slopes soil map unit (map unit 562), which has a farmland classification of "Farmland of local importance" (Soil Survey Staff 2016). However, with the exception of the area where the new pond outlet channel is located, the soils in the project area have been disturbed or removed during past soil borrow and excavation at the site. The Proposed Actions will impact approximately 0.2 acres of the Carten loam soil currently undisturbed in the project area. Relocation of the outlet channel may convert some agricultural land to wetland by routing pond outlet flows through the northern portion of



the project area. This action is not expected to reduce the productivity of the land surrounding the outlet channel for agricultural use.

	•						
Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment	
A. Deterioration of critical fish or wildlife habitat?			х		Yes	8A	
B. Changes in the diversity or abundance of game animals or bird species?			х		Yes	8B	
C. Changes in the diversity or abundance of nongame species?			х			8C	
D. Introduction of new species into an area?				х			
E. Creation of a barrier to the migration or movement of animals?			х		Yes	8E	
F. Adverse effects on any unique, rare, threatened, or endangered species?			х		Yes	8F	
G. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?			x		Yes	8G	
H. Will the project be performed in any area in which threatened or endangered species are present, and will the project affect any threatened or endangered species or their habitat?			x		Yes	8H, see also 8F	
I. Will the project introduce or export any species not presently or historically occurring in the receiving location?				x			

Table 8. Potential Impacts to the Physical Environment – Fish and Wildlife





#### Comments:

8A. No critical habitat is mapped within the project area. The adjacent Clark Fork River is mapped as critical habitat for bull trout (*Salvelinus confluentus*) (USFWS, 2010). The Proposed Action is not expected to affect habitat in the Clark Fork River. There are two project actions that will result in small areas of disturbance along a side channel of the Clark Fork River, including: 1) removal of the existing pond outlet culvert that discharges pond water into a side channel of the Clark Fork River; and 2) filling of a constructed overflow channel that also discharged water into a side channel of the Clark Fork River; and 2) filling of a constructed overflow channel that also discharged water into a side channel of the Clark Fork River; and 2) filling be used to prevent fine sediment from entering the side channel. BMPs and sediment control measures installed between construction activities and any open water or drainage way. Sediment control measures including BMPs and sediment detention ponds will be used to prevent fine sediment from entering the Clark Fork River. The relocation of the pond outlet and filling of the overflow channel is expected to reduce sediment loading to the Clark Fork River in the long term. The construction of a new outlet channel is expected to increase aquatic habitat.

8B. The Proposed Action will temporarily reduce the abundance and diversity of fish game species. Racetrack Pond is stocked annually with native native westslope cutthroat trout and sterile rainbow trout and is a popular fishing area. During dewatering of the pond, FWP personnel will capture and remove as many illegally introduced and non-game fish as possible. Fish capture will be done either through electroshocking or use of nets, depending on water depths. Water levels in the pond may reestablish slowly after construction dewatering stops. Depending on water depths over winter, there may be an increased risk of winterkill (due to a lack of dissolved oxygen) to any fish remaining in the pond. After construction activities are complete, FWP will restock Racetrack Pond in spring 2018 with native westslope cutthroat trout and sterile rainbow trout. The Proposed Actions are anticipated to have a long term positive impacts to the aquatic habitat and abundance and diversity of fish game species.

The Proposed Action is not expected to change the abundance or diversity of game animals or bird species in the area. Game animals that are likely to utilize the project area include: white-tailed deer (*Odocoileus virginianus*), pronghorn (*Antilocarpa americana*), ring-necked pheasant (*Phasianus colchicus*), wild turkey (*Meleagris glallopavo*), and ruffed grouse (*Bonasa umbellus*). Game animals will avoid the project area during construction when activity and noise may be elevated, but this will only be a short-term displacement. Long term the Proposed Action is expected to increase the area and quality of habitat for game animals, but not to the extent that abundance or diversity would increase significantly.

8C. The Proposed Action is expected to improve pond and wetland habitat conditions within the project area. The increased habitat and vegetative diversity will provide additional habitat for songbirds, migratory birds, waterfowl, and other nongame species. The project area is currently occupied by a wide range of nongame species including waterfowl, raptors, song birds, amphibians, reptiles and several rodent species. Numerous bird species have been observed in the project area including waterfowl, shorebirds, and many other bird groups that occupy a variety of habitats (Swant 2015, Swant 2016, and Swant pending). An active osprey nest is present on a constructed stand in the southern portion of the project area. Construction activities scheduled to occur in the late fall and early winter are likely to discourage some use of the area by bird species due to noise and general construction activity, but these species will likely use similar habitat located nearby including the Clark Fork River, open water ponds on Dry Cottonwood Creek Ranch, Warm Springs Ponds, and other smaller open water irrigation ponds. The Proposed Action will increase habitat diversity and area, including deep water habitat for diving birds, shallow unvegetated aquatic habitat for dabbler species, vegetated aquatic bed and marsh habitat for rail species, shoreline habitat for shorebirds, and terrestrial habitat for other bird species.

8E. Racetrack Pond is currently stocked with sterile rainbow trout and native westslope cutthroat trout. Movement of fish into and out of the pond is not desired. The current outlet structure is a barrier to fish entering the pond from the Clark Fork River, but it is possible that fish in the pond occasionally escape into the Clark Fork River via



the current outlet pipe. The new outlet structure will be constructed to prevent fish movement into and out of the pond.

Movement of terrestrial wildlife may be temporarily affected during construction. A fence will be installed on the north and south sides of the project area to prevent trespassing on private land. The intent is not to limit wildlife access or movement through the area. Wildlife should be able to move under or over the fence as they do with existing livestock fences that are present in the vicinity of the project area.

Several areas around the pond will be planted with woody vegetation. These areas will be protected from browse by installing individual plant protectors or small exclusionary structures and should not impede wildlife movement.

8F. Sources of existing information for unique, rare, threatened, or endangered animal species included a data request from the MTNHP (MTNHP, 2017a) for Township 06 North, Range 09 West that includes the project area, bird survey report for the Clark Fork River (Swant 2015, Swant 2016, and Swant pending), and FWS Endangered Species Database (USFWS 2017).

The following threatened or endangered species are reported because their mapped habitat range overlaps with the project area:

- Mammals:
  - Wolverine (Gulo gulo) USFWS Status: Proposed Threatened; Source of reported occurrence: MTNHP 2017a
  - Grizzly bear (Ursus arctos) USFWS Status: Threatened; Source of reported occurrence: USFWS 2017
  - Canada lynx (Lynx canadensis) USFWS Status: Threatened; Source of reported occurrence: USFWS 2017
- Fish:
  - Bull trout (Salvelinus confluentus) USFWS Status: Threatened; Source of reported occurrence: MTNHP 2017a

Wolverine and Canada lynx are typically found in higher elevation, alpine to subalpine, forested habitats (MTNHP, 2017b). Incidental use of the project area or surrounding areas may occur if individuals are moving between higher elevation habitat areas, but this use would likely be infrequent. Grizzly bears use a wider variety of habitats than wolverine or Canada lynx (MTNHP 2017b), but due to the close vicinity of an Interstate roadway and other infrastructure, use of the project area by grizzly bear would likely be incidental as they moved to more desirable habitats.

The Clark Fork River adjacent to the project area is mapped as critical habitat for bull trout (USFWS 2010). Bull trout occur in some tributaries of the Clark Fork River, but no bull trout are known to occur in the Clark Fork River within the vicinity of the project (Respec, 2016). The Proposed Action is not expected to affect aquatic habitat in the Clark Fork River. There are two project actions that will result in small areas of disturbance along a side channel of the Clark Fork River, including: 1) removal of the existing pond outlet culvert that discharges pond water into the side channel of the Clark Fork River; and 2) filling of an overflow channel that also discharged water into a side channel of the Clark Fork River from a sediment detention pond constructed during recent borrow material excavations. Sediment control measures will be used to prevent fine sediment from entering the side channel.

Seventeen (Species of Concern) SOC are reported in the vicinity of the project area, including the following (MTNHP 2017a):

- o Mammals:
  - Hoary Bat (Lasiurus cinereus) State Rank: S3; Global Rank: G3G4
- o Birds:





- American White Pelican (Pelecanus erythrorhynchos) State Rank: S3B; Global Rank: G4
- Bald Eagle (Haliaeetus leucocephalus) (Species of Special Concern) State Rank: S4; Global Rank: G5
- o Black-necked Stilt (Himantopus mexicanus) State Rank: S3B; Global Rank: G5
- o Brown Creeper (Certhia americana) State Rank: S3; Global Rank: G5
- o Clark's Grebe (Aechmophorus clarkii) State Rank: S3B; Global Rank: G5
- Common Loon (Gavia immer) State Rank: S3B; Global Rank: G5
- o Ferruginous Hawk (Buteo regalis) State Rank: S3B; Global Rank: G4
- Golden Eagle (Aquila chrysaetos) State Rank: S3; Global Rank: G5
- o Great Blue Heron (Ardea herodias) State Rank: S3; Global Rank: G5
- Hooded Merganser (Lophodytes cucullatus) (Proposed Species of Concern) State Rank: S4; Global Rank: G5
- Horned Grebe (Podiceps auritus) State Rank: S3B; Global Rank: G5
- o Long-billed Curlew (Numenius americanus) State Rank: S3B; Global Rank: G5
- Peregrine Falcon (Falco peregrinus) State Rank: S3; Global Rank: G4
- Rufous Hummingbird (Selasphorus rufus) (Proposed Species of Concern) State Rank: S4B; Global Rank: G5
- White-faced Ibis (Plegadis chihi) State Rank: S3B; Global Rank: G5
- o Fish:
  - Native westslope Cutthroat Trout (Oncorhynchus clarki lewisi) State Rank: S2; Global Rank: G4T4

Hoary bat is the only mammal species of concern reported in the vicinity of the project area. It is a summer resident in Montana and occupies forested areas and forages over water sources in forests or along riparian corridors (MTNHP 2017a and MTNHP 2017b). Hoary bats may incidentally use Racetrack Pond as a foraging site. Most construction work will occur during daylight hours, likely outside of normal foraging hours. Riparian communities along the Clark Fork River likely provide more suitable habitat that would be preferred by this species.

Fifteen bird species of concern were reported to occur in the vicinity of the project area. Six of these species have been observed in the project area or in the Clark Fork River immediately adjacent to the project area, including: American white pelican, bald eagle, common loon, great blue heron, hooded merganser, and peregrine falcon (Swant 2015, Swant 2016, and Swant pending).

Juvenile American white pelicans, noted as non-breeding summer residents, have been observed along the Clark Fork River near Racetrack Pond (Swant 2015, Swant 2016, and Respec 2016). Much of this species' range and breeding habitat occurs outside of Montana and most use in the state is from migrants stopping over on their way to breeding grounds elsewhere (MTNHP 2017b and Respec 2016).

Bald eagles have been observed in or near the Racetrack Pond project area. No active nests have been observed, but there are active nests in other reaches of the Upper Clark Fork River (Swant 2015 and Respec 2016). Bald eagle are year-round residents that typically nest in forested areas along rivers and lakes, fish spawning streams, and have minimum disturbance from human activity (MTNHP 2017b).

Common loons have been occasionally observed using Racetrack Pond during spring months (Swant 2015, Swant 2016, and Respec 2016). This species typically arrives in Montana in mid-March and leaves during late August to October (MTNHP 2017b).

Great blue herons are uncommon at Racetrack Pond. They are more commonly observed in other nearby reaches of the Clark Fork River (Swant 2015, Swant 2016, and Respec 2016). Colonies of this species typically use cottonwood floodplain forests, and less often willows. They are year-round residents in Montana (MTNHP 2017b). There are not currently breeding rookeries along the Clark Fork River, but there have been in the past,



and declines in regenerating cottonwood forest have been noted as a cause for the declining use of the area by this species (Swant 2015 and Respec 2016).

Hooded mergansers have been observed in or near Racetrack Pond (Swant 2015, Swant 2016, and Respec 2016). This species is a year-round resident in western Montana, but is only occasionally observed in the spring and/or fall using the project area (Swant 2015, Respec 2016, and MTNHP 2017b). Breeding habitats include emergent marshes, small lakes, ponds, beaver wetlands, forested creeks and rivers, and swamps. They are typically found in river areas where clear water supports strong fish populations (MTNHP 2017b).

An observation of peregrine falcon was noted as a rare occurrence during 2017 at Racetrack Pond (Swant pending). The year-round resident typically nests on ledges of vertical cliffs where there is unobstructed views, nearby water, and prey (MTNHP 2017b).

Other bird species of concern, species of special concern, or proposed species of concern that have been observed in nearby reaches of the Upper Clark Fork River include Franklin's gull and bobolink (Swant 2015, Swant 2016, and Respec 2016). These species may incidentally use habitat in the project area and their use may be discouraged during construction.

The Proposed Action is anticipated to occur during the fall and winter months. Two of the species most likely to use the pond habitat in the project area, American white pelican and common loon, are migratory species that may start their winter migration prior to the start of construction. Hooded mergansers and great blue heron are also likely to use the pond habitat in the project area and both species may be discouraged from using this habitat during construction. Individuals of the species that are present in the project area during construction would likely move to other nearby open water or riparian habitat along the Clark Fork River and other locations near the project area. Bald eagle and peregrine falcon, year-round residents, likely only incidentally use habitat in the Racetrack Pond project area. Their use of the area may be discouraged during construction, but they range over a larger area where more suitable habitat is available.

The Proposed Action will improve long-term habitat conditions in the pond for diving and wading birds, in shoreline areas around the pond for shorebirds, and in surrounding wetlands and upland habitats for other terrestrial bird species. Improved habitat conditions may lead to increased use of the project area by bird species of concern that have been observed in and around the project area.

Native westslope cutthroat trout is the only fish species of concern reported in the project area (MTNHP 2017a). The species is found in streams and headwater lakes throughout western Montana and populations are at risk due to habitat degradation and loss as well as hybridization with rainbow or Yellowstone cutthroat trout (MTNHP 2017b). Populations of this species in Racetrack pond are stocked by FWP, most recently on May 16, 2017 (FWP 2017). The Proposed Action would have short-term impacts to pond habitat and stocked fish populations, and comments in Section 5B describe measures that will be implemented to minimize impacts to native westslope cutthroat trout during and after construction. Overall, the Proposed Action will increase pond depths, which will provide thermal refuge for native westslope cutthroat trout in the summer and improve over-wintering conditions. The Proposed Action will also increase shoreline vegetation, which will increase insect production and provide additional food sources for trout.

8G. Noise from construction may temporarily discourage typical use of the area by wildlife while equipment is being operated. Columbian ground squirrels (Urocitellus columbianus) are present in the project area and construction activities will displace this species, including active dens. Bull trout are not present in the project area. The Proposed Action is not anticipated to effect critical bull trout habitat in the Clark Fork River. Long-term, the project is intended to improve habitat conditions, including increasing the area of wetland and riparian vegetation communities, increase aquatic habitat, and improving conditions in the surrounding upland habitat that provide diverse habitat and structure for wildlife species.



8H. The MTNHP (2017a) reports two threatened species in the vicinity of Racetrack Pond, wolverine (Gulu gulo) and bull trout (Salvelinus confluentus). Descriptions of potential impacts to these species are described in 8E.

Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Increases in existing noise levels?			Х			9A.
B. Exposure of people to severe or nuisance noise levels?			Х			9B.
C. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?				Х		
D. Interference with radio or television reception and operation?				Х		

#### Table 9. Potential Impacts to the Human Environment – Noise and Electrical

#### Comments:

9A. Noise levels would be temporarily increased during the construction phase of the project from the operation of heavy equipment. Construction activities will be limited to daylight hours. The boat launch provides access for non-motorized watercraft only. There could be slight increases to noise from public traffic accessing the fishing access site. The FAS would be for day-use only, and no overnight camping would be allowed on the site.

9B. There are residential properties located to the north and south of the Racetrack Pond property. The northern residential property is approximately 150 feet to the north of the northern property boundary and southern residential property is located approximately 350 feet south of the southern property boundary. The pond will not be extended further to the north except for the northwest corner as requested by the adjacent landowner. The north end of the pond is designed to be a shallow marsh area not conducive for fishing or boating to mitigate potential disturbances for the landowner to the north.

Table 10.	Potential Im	pacts to the	Human Envi	ronment – Land Use	•
		puoto to the			· .

Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Alteration of or interference with the productivity or profitability of the existing land use of an area?				Х		
B. Conflicted with a designated natural area or area of unusual				Х		





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Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
scientific or educational importance?						
C. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?				Х		
D. Adverse effects on or relocation of residences?				Х		

#### Comments:

Fishing access would be restricted during the course of construction, whereas typically the pond is available to anglers year-round. Construction is anticipated to take 5 to 6 months.

#### Table 11. Potential Impacts to the Human Environment – Risk and Health Hazards

Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?			Х		Yes	11A.
B. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?				Х		
C. Creation of any human health hazard or potential hazard?				Х		
D. Will any chemical toxicants be used?			Х		Yes	11D.

#### Comments:

11A. Construction equipment has the potential to leak a variety of hazardous materials including diesel fuel, lubricating oils, and hydraulic fluids from operating equipment and fuel storage tanks. BMPs, visual inspections, and regular maintenance of equipment will be used to prevent such instances when possible, but a minor risk of a leak or spill is possible. Spill kits will be kept onsite while equipment is operational for timely cleanup in the event of a spill. Immediate action will be taken in the event of a spill including excavation and hauling of impacted soils to an appropriate disposal facility, and/or sorbent booms placed on surface water to prevent the migration of





contaminants until it could be removed with a vacuum-type truck and hauled to an appropriate disposal facility. A Storm Water Pollution Prevention Plan (SWPPP) for construction activity will be prepared and submitted to MDEQ prior to initiation of construction to document these measures. If required, a Spill Prevention, Containment, and Countermeasure (SPCC) Plan will be prepared and submitted to the U.S. Environmental Protection Agency (EPA). Physical disturbance of the soil during construction would encourage the establishment of additional noxious weeds on the site. In conjunction with the Powell County Weed District, NRDP would implement an integrated approach to control noxious weeds. The use of herbicides would be in compliance with application guidelines to minimize the risk of chemical spills or water contamination and applied by people trained in safe handling techniques.

11C. The Proposed Action will remove the existing steep banks which will reduce the associated potential hazard. 11D. Chemical herbicides will be used for noxious weed control. The use of herbicides will be in compliance with application guidelines and applied by people trained in safe handling techniques.

Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Alteration of the location, distribution, density, or growth rate of the human population of an area?				Х		
B. Alteration of the social structure of a community?				Х		
C. Alteration of the level or distribution of employment or community/personal income?				Х		
D. Changes in industrial or commercial activity?				Х		
E. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?			Х			12E.

#### Table 12. Potential Impacts to the Human Environment – Community Impact

#### Comments:

12C. The Proposed Action is anticipated to increase tourism in the area, see **Appendix F, Racetrack Pond Tourism Report**.

12E. The Proposed Action may increase traffic on West River Road. There will be a slight increase in traffic on West River Road during construction activities. Anglers and hikers currently park alongside West River Road when accessing the site. The Proposed Action includes a parking area designed for 11 trucks with trailers and 8 cars and will keep vehicles from parking on West River Road. The Proposed Action would improve public safety



by improving boat launching facilities, providing adequate parking, and improving traffic flow, thereby minimizing vehicle conflicts between visitors.

Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify.			X			13A.
B. Will the proposed action have an effect upon the local or state tax base and revenues?				Х		
C. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?				X		
D. Will the proposed action result in increased used of any energy source?				Х		
E. Define projected revenue sources			Х			13E.
F. Define projected maintenance costs			Х			13F.

#### Table 13. Potential Impacts to the Human Environment – Public Services, Taxes and Utilities

#### Comments:

13A. The Proposed Action will require routine maintenance and periodic security visits by FWP personnel, but would be within the existing travel routes and within their regular scope of services.

13E. The Racetrack Pond FAS would be used for day-use only; therefore, no revenue would be collected beyond what is collected for fishing licenses and vehicle licensing fees.

13F. Projected annual costs incurred by the FWP for maintenance, weed control, and staffing for the 2018 fiscal year is anticipated to be \$3,000 to \$4,000 per year.

Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?			Х		Х	13A.
B. Alteration of the aesthetic character of a community or neighborhood?				Х		
C. Alteration of the quality or quantity of recreational/tourism opportunities and settings?			Х			13C.
D. Will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted?				Х		

#### Table 14. Potential Impacts to the Human Environment – Aesthetics and Recreation

#### Comments:

14A. The Proposed Action will improve the aesthetic value of the pond by increasing vegetation diversity and replacing areas of bare soil and invasive weeds with native vegetation along the shoreline and trail. The existing view of the pond consists of steep banks bare of vegetation and mineral stockpiles leftover from 2016 construction activities. The Proposed Action with increase vegetation along the pond and give the pond a more natural appearance. Overall the Proposed Action is anticipated to have significant long term positive impacts to the aesthetic value of the area.

14C. The Proposed Action is anticipated to increase the quantity of visitors to the site due to the installation of amenities making it more favorable to anglers, families, and handicapped visitors. FWP will conduct routine maintenance of the site.

Table 15. Potential Imp	acts to the Human Environment – Cultural and Historical Resources

Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Destruction or alteration of any site, structure or object of				Х		



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Will the proposed action result in potential impacts to:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
prehistoric historic, or paleontological importance?						
B. Physical change that would affect unique cultural values?				Х		
C. Effects on existing religious or sacred uses of a site or area?				Х		
D. Will the project affect historic or cultural resources?				Х	Х	14D.

#### Comments:

15d. The Montana State Historic Preservation Office (SHPO) was contacted as part of this EA to complete file records search for the site. No eligible cultural resources were identified within the EA boundary; however, the West Side Irrigation Canal is located adjacent to the site. The canal is greater than 50 years old but was recommended ineligible for the National Registry of Historic Places (NRHP). The canal will not be disturbed, and all personnel working onsite will be instructed to avoid the structure.

### 3.1 SUMMARY OF SIGNIFICANCE CRITERIA

The table below summarizes significance criteria of the Proposed Action for the Racetrack Pond FAS.

Will the proposed action, considered as a whole:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
A. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)				Х		
B. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?				Х		
C. Potentially conflict with the substantive requirements of any local, state, or federal law,				Х		

#### Table 16. Summary Evaluation of Significance Criteria





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Will the proposed action, considered as a whole:	Unknown	Potentially significant	Minor	None	Can be mitigated	Comment
regulation, standard or formal plan?						
D. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?				Х		
E. Generate substantial debate or controversy about the nature of the impacts that would be created?				Х		
F. Is the project expected to have organized opposition or generate substantial public controversy?				Х		
G. List any federal or state permits required.						16G.

#### Comments:

16G. The following permits are required for this project and will be obtained prior to construction activity:

- ACOE, Section 404 of Federal Clean Water Act
- MDEQ Water Protection Bureau, Section 318 of the Water Quality Act, Short Term Water Quality Standards for Turbidity
- MDEQ Water Protection Bureau, General Permit for Storm Water Discharges Associated with Construction Activity
- Montana FWP, Section 124 of the Stream Protection Act
- Powell County Conditional Use Permit
- Powell County Floodplain Permit
- Powell County Sanitation Permit

### **3.2 CUMULATIVE IMPACTS**

The Proposed Action may cause minor temporary impacts to the environment, but the outcome of this FAS would be a benefit to the community and the environment. The Proposed Action will have long term positive impacts to the recreation in the Upper Clark Fork Basin and on the Clark Fork River. The Proposed Action would not have any long term negative cumulative effects on the biological, physical, or human environments. To document these findings, a Montana Environmental Policy Act (MEPA) Tourism Report is also presented in **Appendix F** in order to comply with 23-1-110 MCA for the improvement or development of state park or fishing access site - required public involvement - rules.



### 4.0 NARRATIVE EVALUATION AND COMMENT

The Proposed Action would improve biological habitat and year-round fishing access at Racetrack Pond through grading of the existing pond, revegetation, and installation FAS ADA accessible amenities. Temporary disturbances to water volume and turbidity of the pond are expected. Dust mitigation will be implemented while heavy equipment is operating. Temporary sediment is also anticipated to increase during construction of the pond outlet channel, including the disturbance of existing wetlands. This alternative will likely create minor disturbances during construction such as noise, diesel exhaust, and the potential for contaminants to spill or leak from heavy equipment and fuel storage tanks. This alternative is expected to have short-term impacts on existing vegetation in the project area, but will ultimately improve native vegetation cover and species diversity.

The Proposed Action intends to improve habitat conditions in Racetrack Pond by creating deeper aquatic habitat to support overwintering of fish and deep water habitat for diving birds. The edges of the pond will be graded to create larger areas of shallow wading habitat, some of which will support aquatic vegetation and increase the area of preferred habitat for shorebirds. The Proposed Action will also increase the area of wetland around the pond and along the newly constructed pond outlet channel. Other concerns include potentially damaging the irrigation canal that borders the site during construction, though the canal would not be disturbed under the proposed action. These risks will be temporary, and once construction is complete they will no longer be a concern. Once the project is completed, a minor burden will be placed on FWP for maintaining the site, and FWP will continue stocking native westslope cutthroat and sterile rainbow trout. There is also the potential that the concrete vault toilet will produce unpleasant odors. The boat launch provides access for non-motorized watercraft only, but there could be slight increases in noise from public traffic accessing the fishing access site.

If the no alternative is chosen, than the site will remain as is and without improvements. The risks associated with this option are continued encroachment by invasive weeds, sloughing of unstable banks, and underutilization by wildlife and anglers. FWP would continue to incur some costs because the pond would continue to be stocked with game fish. Mitigation for risks from no action are limited, as other state and local agencies would be responsible for weed management, and the site would remain a visual scar on the land and underutilized.

Mitigation of risks from the Proposed Action would include the implementation of FWP construction BMPs adhering to regulatory permits for wetlands, water quality, and storm water. The FAS amenities will be designed according to FWP guidelines, which include minimizing odors from the latrine.

Funding has been made available by NRDP. The risks associated with this alternative can be mitigated. Costs to maintain the site would be minimal and within the scope of FWP's current work environment.

### **5.0 PUBLIC PARTICIPATION**

The public will be notified in the following manners to comment on the Racetrack Pond FAS and Habitat improvement project and this current Draft EA including the Proposed Action and alternatives.

- Legal notice will be published twice each in these newspapers: *Independent Record* (Helena; FWP's newspaper of record), *Missoulian* (Region 2 FWP's newspaper of record, and the *Silver State Post* (Deer Lodge, local project area newspaper).
- Public notice will be posted on NRDP's webpage <a href="https://dojmt.gov/lands">https://dojmt.gov/lands</a> ("Public Notices" the "Notice of Public Comments"); the Draft EA will also be available on that webpage, along with the opportunity to submit comments online.
- Copies of this draft EA may be obtained by mail from Michelle Golden by phoning 406-444-0205 or emailing <a href="mailto:nrdp@mt.gov">nrdp@mt.gov</a>.





- Notices will be sent to adjacent landowners and interested parties to ensure their knowledge of the Proposed Action.
- A public meeting to discuss the Racetrack Pond FAS and habitat improvement project and this current Draft EA including the Proposed Action and alternatives will be held at the Racetrack Valley Fire Hall/Racetrack Community Center on August 17, 2017 starting at 7:00 pm. To reach the Race Track Valley Fire Hall/Race Community Center from Interstate 90, take exit 195, Racetrack Rd, head west to the Frontage Road intersection, turn right (north), proceed less than one mile. The Race Track Valley Fire Hall/Race Community Center will be on the right, just north of the Gemback Bar.

This level of public notice and participation is appropriate for a project of this scope with no significant physical or human impacts and only minor impacts that can be mitigated. Public comments on this draft Environmental Assessment will be incorporated into the design plans, as appropriate.

The public comment period will extend for thirty (30) days. Written comments will be accepted until **5:00 p.m. on September 4, 2017** and can be mailed to the address below:

NRDP PO Box 201425 Helena, MT 59620 Fax (406) 444-0236 Email: nrdp@mt.gov

### 6.0 EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required? NO

If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this Proposed Action.

Based on an evaluation of impacts to the physical and human environment under MEPA, this environmental review revealed no significant negative impacts from the Proposed Action: therefore, an EIS is not necessary and an environmental assessment is the appropriate level of analysis. In determining the significance of the impacts, FWP in cooperation with NRDP assessed the severity, duration, geographic extent, and frequency of the impact, the probability that the impact would occur or reasonable assurance that the impact would not occur. FWP assessed the growth-inducing or growth-inhibiting aspects of the impact, the importance to the state and to society of the environmental resource or value effected, any precedent that would be set as a result of an impact of the Proposed Action that would commit FWP to future actions; and potential conflicts with local, federal, or state laws. As this EA revealed no significant impacts from the Proposed Actions, an EA is the appropriate level of review and an EIS is not required.

#### 2. This EA is prepared for:

Montana Department of Justice Natural Resource Damage Program P.O. Box 201425 Helena, MT 59620-1425

This EA is prepared by:

Tetra Tech 303 Irene Street Helena, MT 59601 Montana Department of Fish, Wildlife and Parks, Region 2 3201 Spurgin Road Missoula, MT 59804

Geum Environmental Consulting, Inc. 307 State Street Hamilton, Montana 59840





3. List of agencies or offices consulted during preparation of the EA:

Montana Natural Resource Damage Program Montana Fish, Wildlife and Parks Design and Construction Fisheries Division Montana Department of Environmental Quality Montana Department of Commerce – Tourism Montana Natural Heritage Program – Natural Resource Information System (NRIS) Montana State Historic Preservation Office



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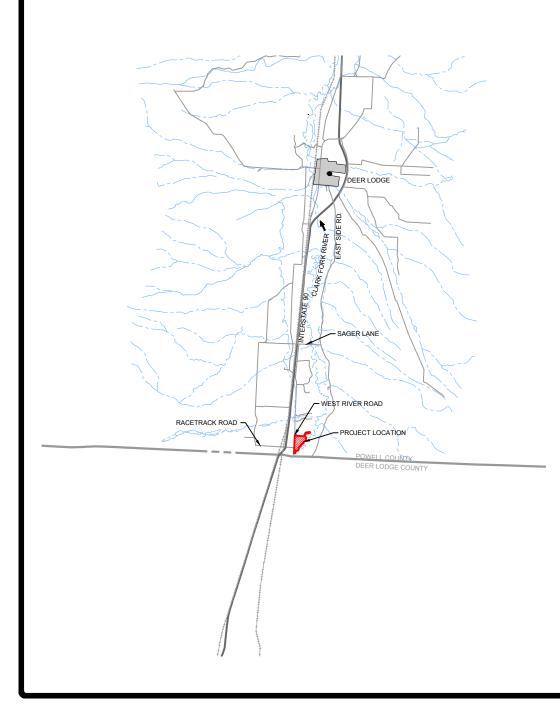




Figures

# DRAFT RACETRACK POND FISHING ACCESS SITE AND HABITAT IMPROVEMENT PROJECT POWELL COUNTY, MONTANA

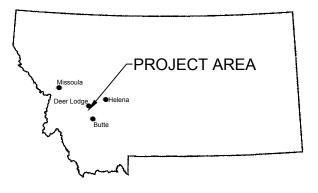
JULY 2017



PREPARED FOR:

Montana Department of Justice

Natural Resource Damage Program



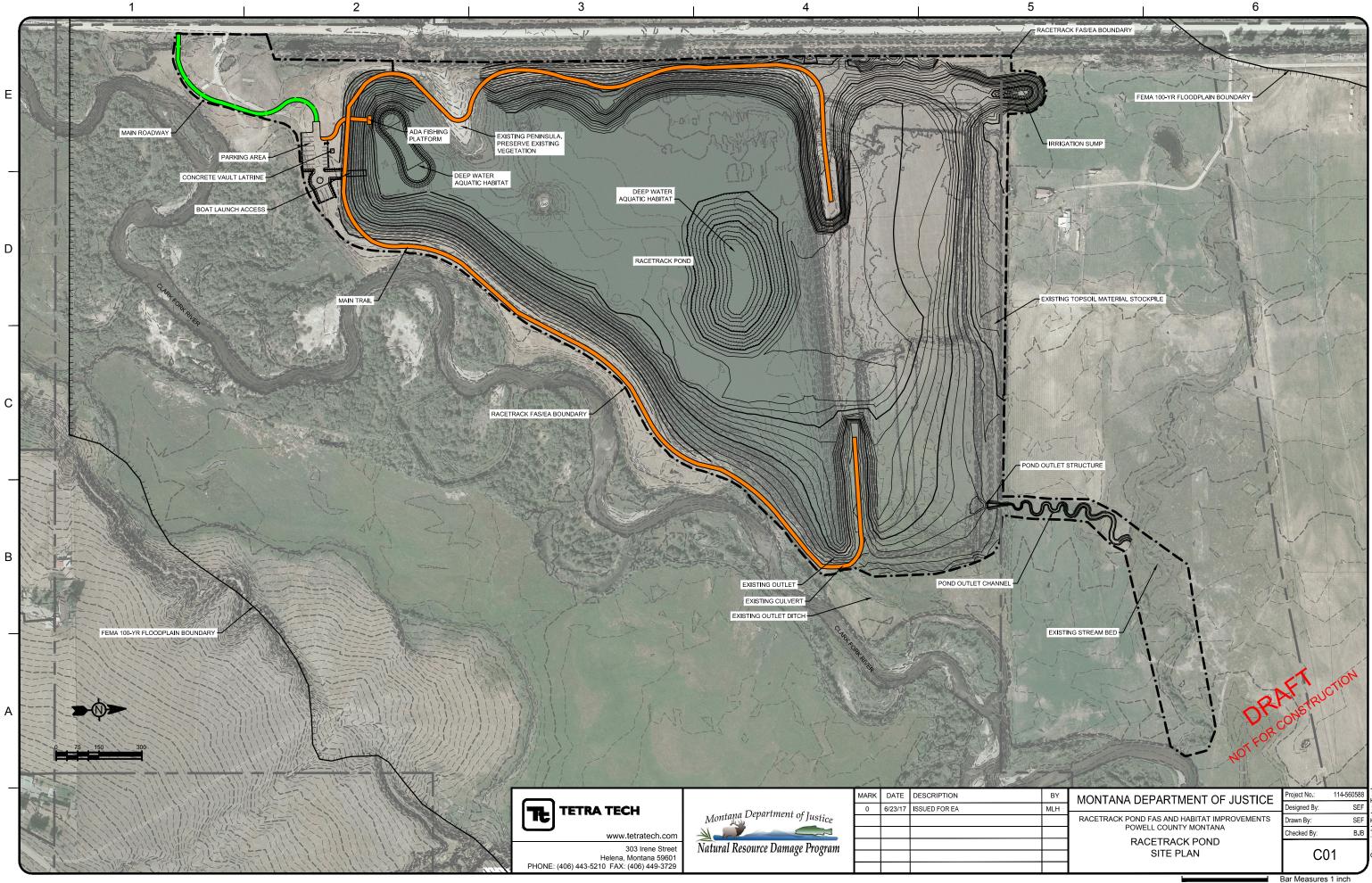
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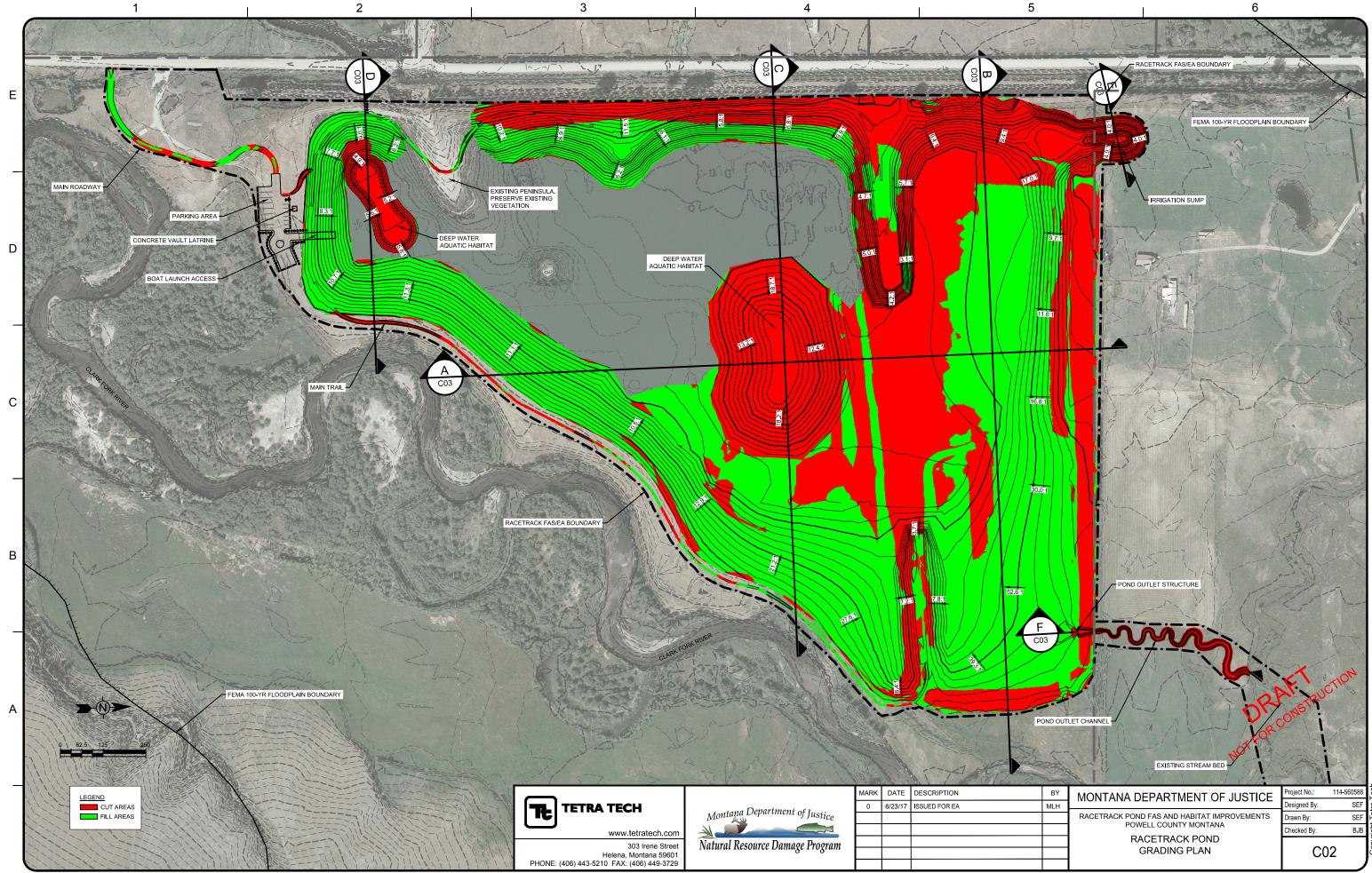




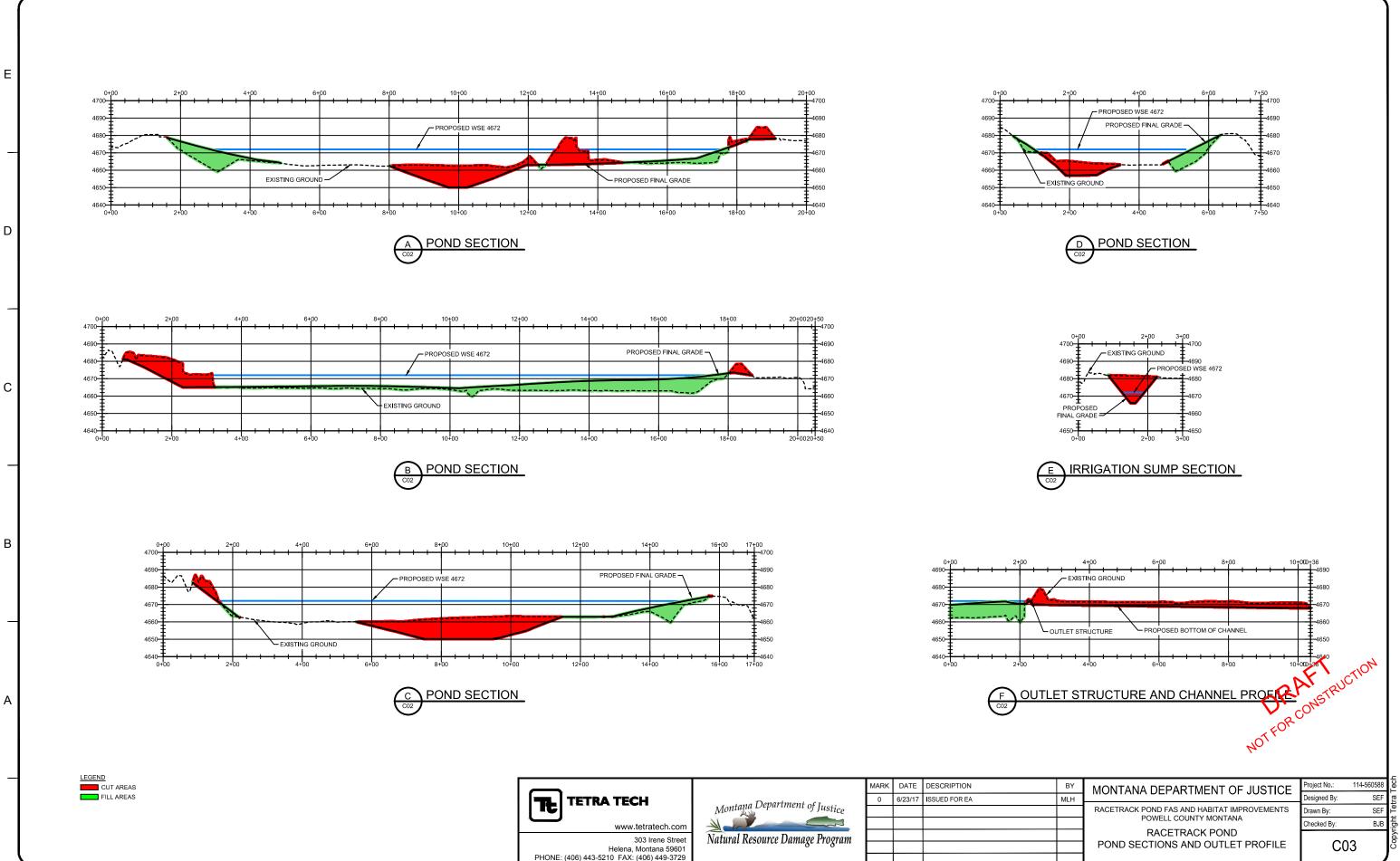
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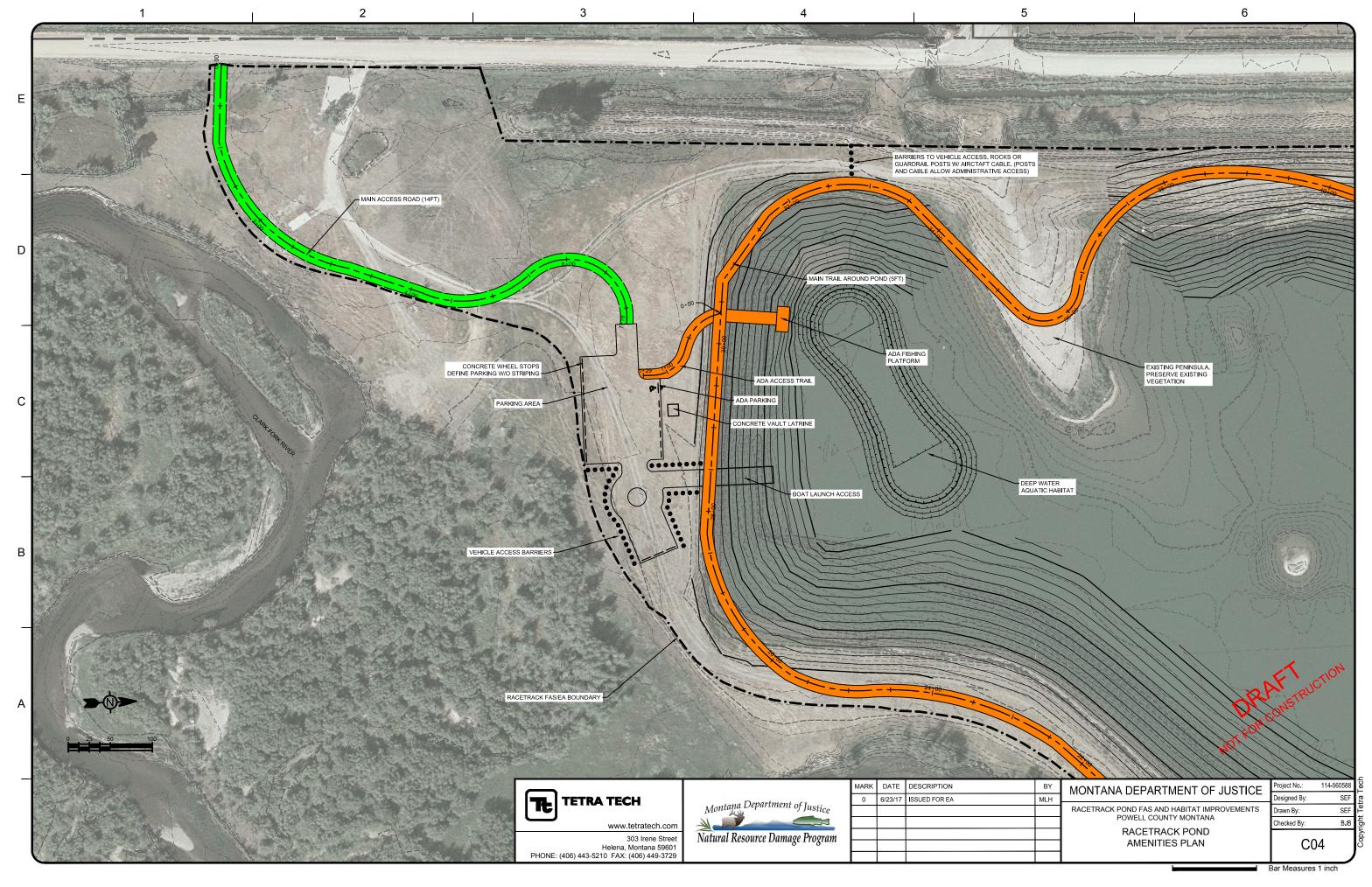
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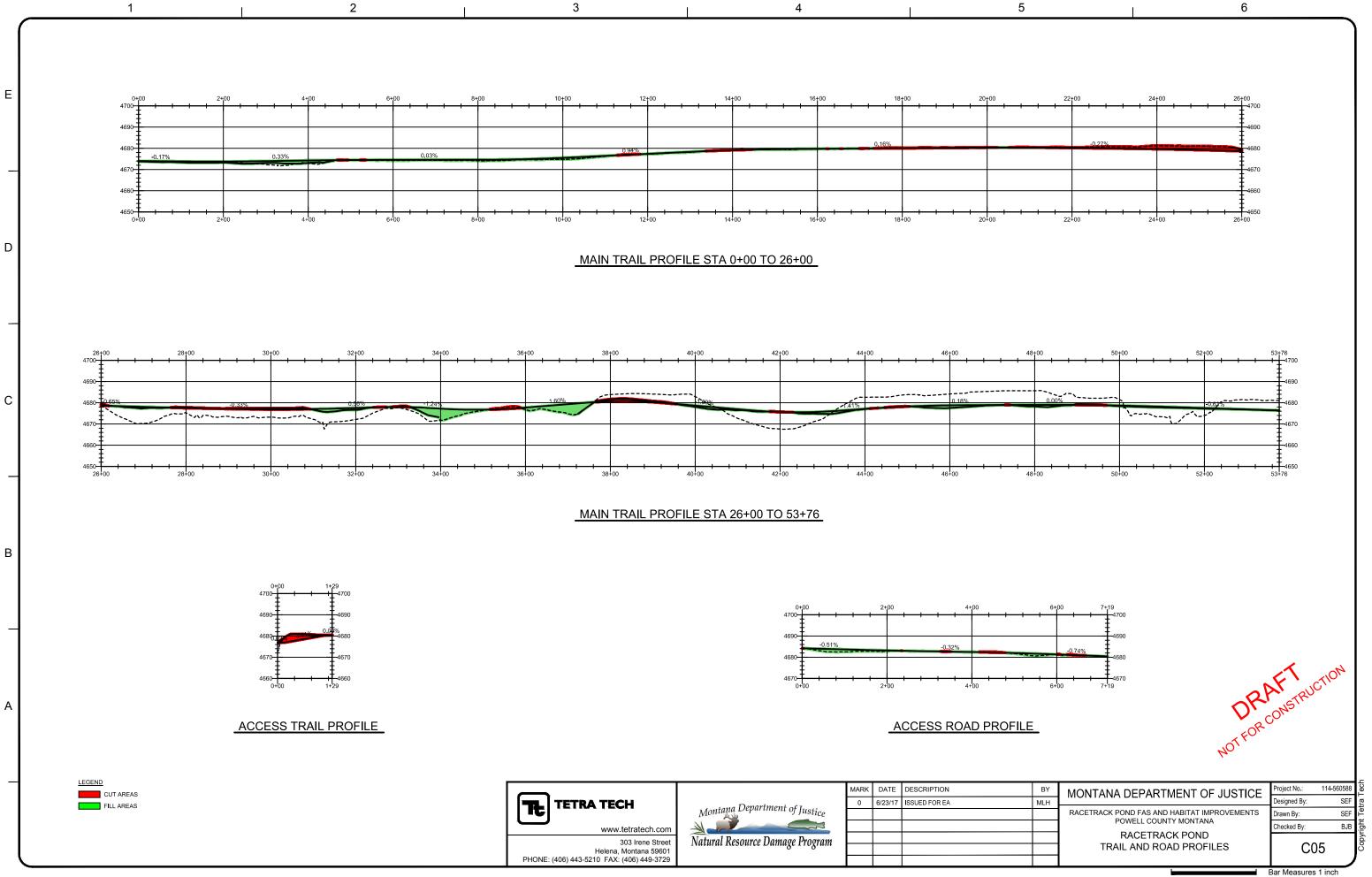
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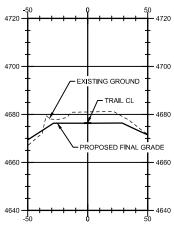
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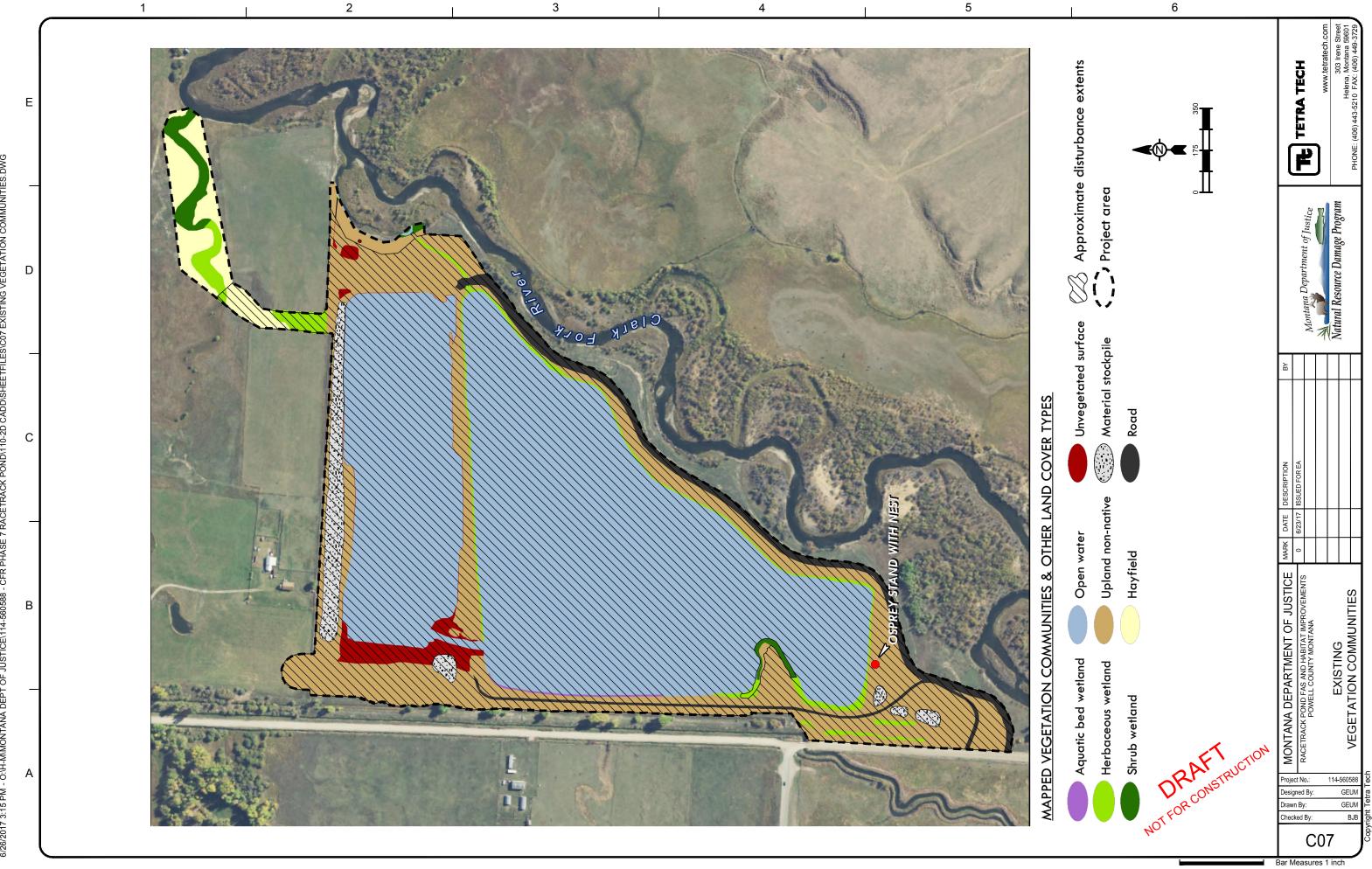
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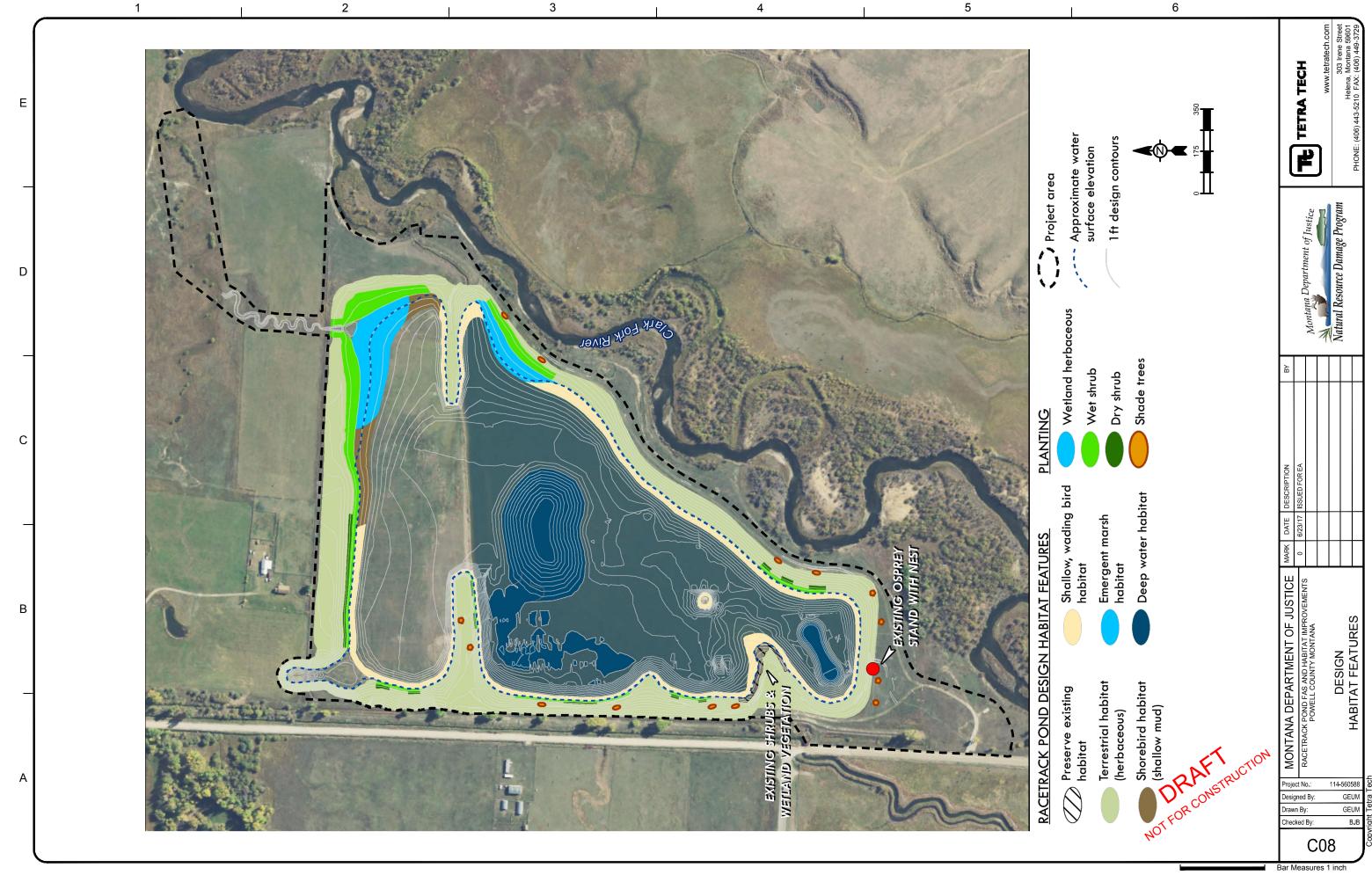




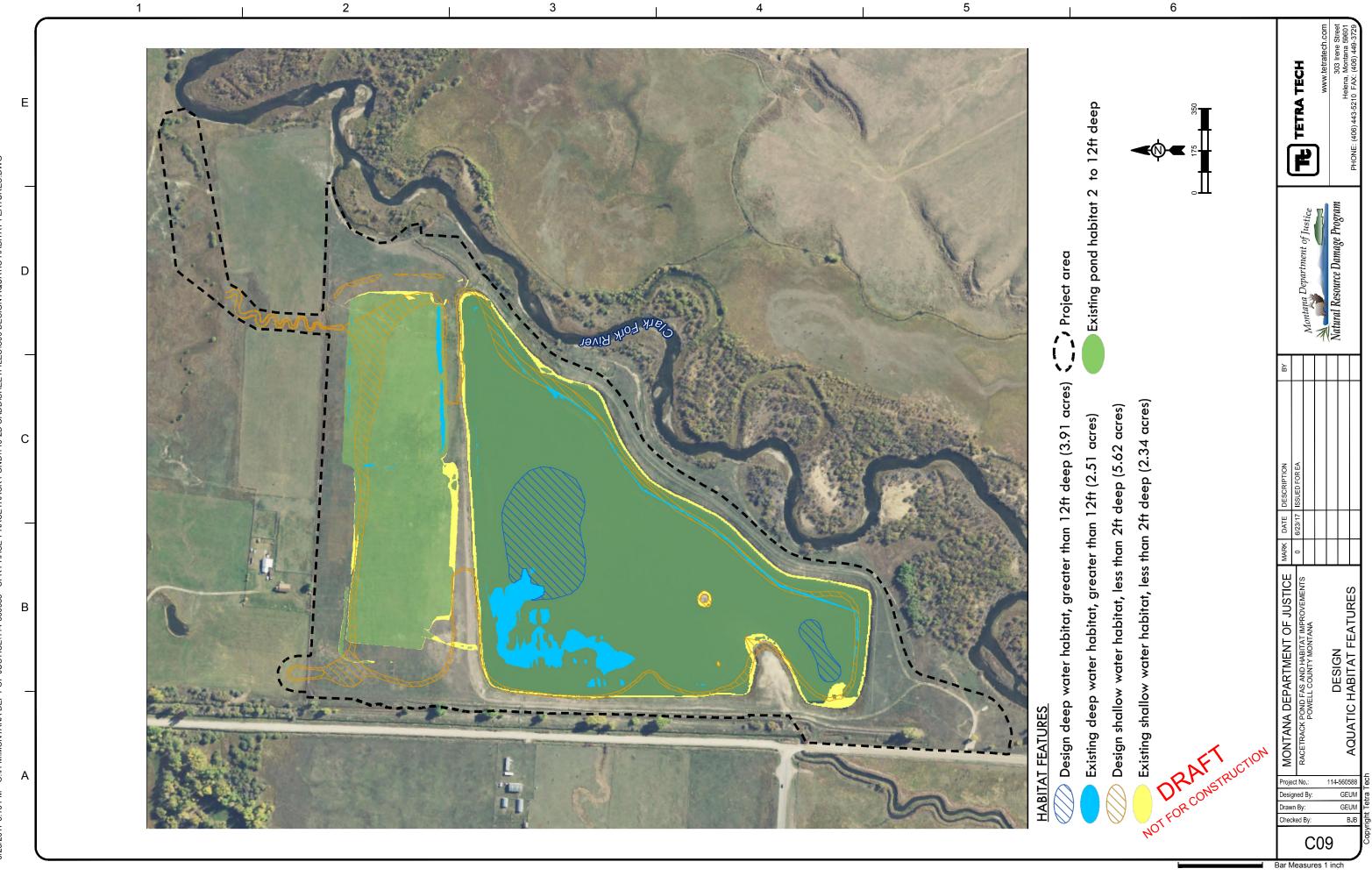
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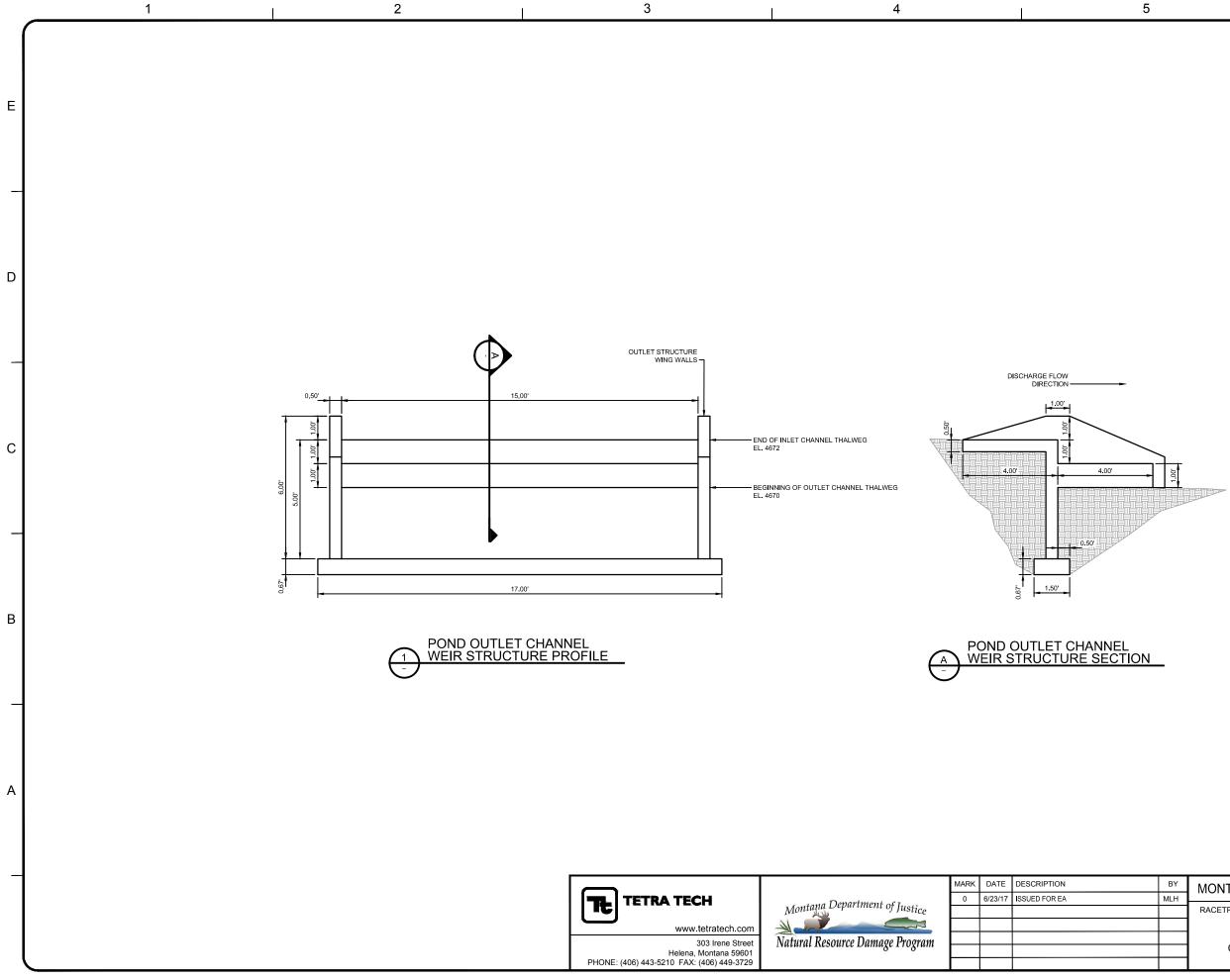
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Appendix A

HB 495 Checklist

#### HB 495 Checklist

### Date: August 1, 2017

### **Person Reviewing: Tom Mostad**

**Project Location:** Racetrack Pond is located on the Clark Fork River off Interstate 90 at exit 195 along West River Road in Racetrack, Montana in Powell County Section 16, Township 06 N, Range 9 West.

**Description of Proposed Work:** The Montana Department of Fish Wildlife and Parks (FWP) in cooperation with the Montana Natural Resource Damage Program (NRDP) proposes to improve the Racetrack Pond Area near Racetrack, Montana for the purpose of developing the area into a fishing access site (FAS). The proposed FAS developments include access roads, walking trails, boat launch, parking area including U.S. Americans with Disabilities Act (ADA) accessible parking, and ADA latrine and an ADA fishing access platform. Habitat improvements include regrading of the pond area for the purpose of increasing the quality of shoreline vegetation, wetlands, waterfowl habitat, and aquatic habitat.

In implementing 23-1-110, MCA, the commission considers the following improvement or development projects to be those that significantly change park or fishing access site features or use patterns:

[] (a) new roadways or trails built over undisturbed land;

[] (b) new buildings constructed (with the exception of vault latrines and other buildings under 100 square feet);

[X] (c) any excavation of 20 cubic yards or greater;

[X] (d) new parking lots built over undisturbed land or the expansion of an existing lot that increases the parking capacity by 25% or more;

[X] (e) any new shoreline alteration that exceeds a double wide boat ramp or handicapped fishing station;

[X] (f) any new construction into lakes, reservoirs or streams;

[] (g) any new construction in an area with National Registry quality cultural artifacts (as determined by the state historical preservation office); and,

[] (h) any new above ground utility lines.

[] (i) any increase or decrease in campsites of 25% or more of the existing number of campsites.

All proposed improvement or development projects will be evaluated on a case-by-case basis to determine if they would significantly change park or fishing access site features or use patterns, including the cumulative effects of a series of individual projects. If any of the above are checked, HB 495 rules apply.

Appendix B

Montana Fish Wildlife And Parks

**Best Management Practices** 

# APPENDIX B MONTANA FISH, WILDLIFE AND PARKS

BEST MANAGEMENT PRACTICES

10-02-02; Updated May 1, 2008

## I. ROADS

## A. Road Planning and location

- 1. Minimize the number of roads constructed at the FAS through comprehensive road planning, recognizing foreseeable future uses.
  - a. Use existing roads, unless use of such roads would cause or aggravate an erosion problem.
- 2. Fit the road to the topography by locating roads on natural benches and following natural contours. Avoid long, steep road grades and narrow canyons.
- 3. Locate roads on stable geology, including well-drained soils and rock formations that tend to dip into the slope. Avoid slumps and slide-prone areas characterized by steep slopes, highly weathered bedrock, clay beds, concave slopes, hummocky topography, and rock layers that dip parallel to the slope. Avoid wet areas, including seeps, wetlands, wet meadows, and natural drainage channels.
- 4. Minimize the number of stream crossings.
  - a. Choose stable stream crossing sites. "Stable" refers to streambanks with erosion-resistant materials and in hydrologically safe spots.

#### B. Road Design

- 1. Design roads to the minimum standard necessary to accommodate anticipated use and equipment. The need for higher engineering standards can be alleviated through proper road-use management. "Standard" refers to road width.
- 2. Design roads to minimize disruption of natural drainage patterns. Vary road grades to reduce concentrated flow in road drainage ditches, culverts, and on fill slopes and road surfaces.

## C. Drainage from Road Surface

- 1. Provide adequate drainage from the surface of all permanent and temporary roads. Use outsloped, insloped or crowned roads, installing proper drainage features. Space road drainage features so peak flow on road surface or in ditches will not exceed their capacity.
  - a. Outsloped roads provide means of dispersing water in a low-energy flow from the road surface. Outsloped roads are appropriate when fill slopes are stable, drainage will not flow directly into stream channels, and transportation safety can be met.
  - b. For insloped roads, plan ditch gradients steep enough, generally greater than 2%, but less than 8%, to prevent sediment deposition and ditch erosion. The steeper gradients may be suitable for more stable soils; use the lower gradients for less stable soils.
  - c. Design and install road surface drainage features at adequate spacing to control erosion; steeper gradients require more frequent drainage features. Properly constructed drain dips can be an economical method of road surface drainage. Construct drain dips deep enough into the subgrade so that traffic will not obliterate them.
- 2. For ditch relief/culverts, construct stable catch basins at stable angles. Protect the inflow end of crossdrain culverts from plugging and armor if in erodible soil. Skewing ditch relief culverts 20 to 30 degrees toward the inflow from the ditch will improve inlet efficiency.
- 3. Provide energy dissipators (rock piles, slash, log chunks, etc.) where necessary to reduce erosion at outlet of drainage features. Cross-drains, culverts, water bars, dips, and other drainage structures should not discharge onto erodible soils or fill slopes without outfall protection.

4. Route road drainage through adequate filtration zones, or other sediment-settling structures. Install road drainage features above stream crossings to route discharge into filtration zones before entering a stream.

#### D. <u>Construction/Reconstruction</u>

- 1. Stabilize erodible, exposed soils by seeding, compacting, riprapping, benching, mulching, or other suitable means.
- 2. At the toe of potentially erodible fill slopes, particularly near stream channels, pile slash in a row parallel to the road to trap sediment. When done concurrently with road construction, this is one method to effectively control sediment movement and it also provides an economical way of disposing of roadway slash. Limit the height, width and length of these "slash filter windrows" so not to impede wildlife movement. Sediment fabric fences or other methods may be used if effective.
- 3. Construct cut and fill slopes at stable angles to prevent sloughing and subsequent erosion.
- 4. Avoid incorporating potentially unstable woody debris in the fill portion of the road prism. Where possible, leave existing rooted trees or shrubs at the toe of the fill slope to stabilize the fill.
- 5. Place debris, overburden, and other waste materials associated with construction and maintenance activities in a location to avoid entry into streams. Include these waste areas in soil stabilization planning for the road.
- 6. When using existing roads, reconstruct only to the extent necessary to provide adequate drainage and safety; avoid disturbing stable road surfaces. Consider abandoning existing roads when their use would aggravate erosion.

#### E. Road Maintenance

- 1. Grade road surfaces only as often as necessary to maintain a stable running surface and to retain the original surface drainage.
- 2. Maintain erosion control features through periodic inspection and maintenance, including cleaning dips and cross-drains, repairing ditches, marking culvert inlets to aid in location, and clearing debris from culverts.
- 3. Avoid cutting the toe of cut slopes when grading roads, pulling ditches, or plowing snow.
- 4. Avoid using roads during wet periods if such use would likely damage the road drainage features. Consider gates, barricades or signs to limit use of roads during wet periods.
- II. RECREATIONAL FACILITIES (parking areas, campsites, trails, ramps, restrooms)
  - A. Site Design
    - 1. Design a site that best fits the topography, soil type, and stream character, while minimizing soil disturbance and economically accomplishing recreational objectives. Keep roads and parking lots at least 50 feet from water; if closer, mitigate with vegetative buffers as necessary.
    - 2. Locate foot trails to avoid concentrating runoff and provide breaks in grade as needed. Locate trails and parking areas away from natural drainage systems and divert runoff to stable areas. Limit the grade of trails on unstable, saturated, highly erosive, or easily compacted soils
    - 3. Scale the number of boat ramps, campsites, parking areas, bathroom facilities, etc. to be commensurate with existing and anticipated needs. Facilities should not invite such use that natural features will be degraded.
    - 4. Provide adequate barriers to minimize off-road vehicle use
  - B. <u>Maintenance: Soil Disturbance and Drainage</u>

- 1. Maintenance operations minimize soil disturbance around parking lots, swimming areas and campsites, through proper placement and dispersal of such facilities or by reseeding disturbed ground. Drainage from such facilities should be promoted through proper grading.
- 2. Maintain adequate drainage for ramps by keeping side drains functional or by maintaining drainage of road surface above ramps or by crowning (on natural surfaces).
- 3. Maintain adequate drainage for trails. Use mitigating measures, such as water bars, wood chips, and grass seeding, to reduce erosion on trails.
- 4. When roads are abandoned during reconstruction or to implement site-control, they must be reseeded and provided with adequate drainage so that periodic maintenance is not required.

#### III. RAMPS AND STREAM CROSSINGS

- A. Legal Requirements
  - 1. Relevant permits must be obtained prior to building bridges across streams or boat ramps. Such permits include the SPA 124 permit, the COE 404 permit, and the DNRC Floodplain Development Permit.

#### B. Design Considerations

- 1. Placement of boat ramp should be such that boats can load and unload with out difficulty and the notch in the bank where the ramp was placed does not encourage bank erosion. Extensions of boat ramps beyond the natural bank can also encourage erosion.
- 2. Adjust the road grade or provide drainage features (e.g. rubber flaps) to reduce the concentration of road drainage to stream crossings and boat ramps. Direct drainage flow through an adequate filtration zone and away from the ramp or crossing through the use of gravel side-drains, crowning (on natural surfaces) or 30-degree angled grooves on concrete ramps.
- 3. Avoid unimproved stream crossings on permanent streams. On ephemeral streams, when a culvert or bridge is not feasible, locate drive-throughs on a stable, rocky portion of the stream channel.
- 4. Unimproved (non-concrete) ramps should only be used when the native soils are sufficiently gravelly or rocky to withstand the use at the site and to resist erosion.

#### C. Installation of Stream Crossings and Ramps

- 1. Minimize stream channel disturbances and related sediment problems during construction of road and installation of stream crossing structures. Do not place erodible material into stream channels. Remove stockpiled material from high water zones. Locate temporary construction bypass roads in locations where the stream course will have a minimal disturbance. Time the construction activities to protect fisheries and water quality.
- 2. Where ramps enter the stream channel, they should follow the natural streambed in order to avoid changing stream hydraulics and to optimize use of boat trailers.
- 3. Use culverts with a minimum diameter of 15 inches for permanent stream crossings and cross drains. Proper sizing of culverts may dictate a larger pipe and should be based on a 50-year flow recurrence interval. Install culverts to conform to the natural streambed and slope on all perennial streams and on intermittent streams that support fish or that provide seasonal fish passage. Place culverts slightly below normal stream grade to avoid culvert outfall barriers. Do not alter stream channels upstream from culverts, unless necessary to protect fill or to prevent culvert blockage. Armor the inlet and/or outlet with rock or other suitable material where needed.
- 4. Prevent erosion of boat ramps and the affected streambank through proper placement (so as to not catch the stream current) and hardening (riprap or erosion resistant woody vegetation).
- 5. Maintain a 1-foot minimum cover for culverts 18-36 inches in diameter, and a cover of one-third diameter for larger culverts to prevent crushing by traffic.

Appendix C

Wetland Delineation Report

# **Racetrack Pond Restoration Project**

# Wetland Delineation Report



**Prepared For:** Montana Department of Justice, Natural Resource Damage Program P.O. Box 201425 Helena, Montana 59620

**Prepared By:** Geum Environmental Consulting, Inc. 307 State Street Hamilton, Montana 59840



June 2017

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# 1.0 Introduction

A fishing access development and pond restoration project is proposed for Racetrack Pond located southeast of Racetrack, Montana. Geum Environmental Consulting, Inc. (Geum) completed a wetland delineation of the project area on June 6<sup>th</sup> and 7<sup>th</sup>, 2017 to support permitting for the proposed project. Figure 1 shows the location of the project area and the evaluation extent for this wetland delineation.

# 2.0 Methods

Field methods for the wetland delineation followed those described for routine wetland delineations in areas greater than 5 acres in size following the *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987). Data collection methods and wetland boundary determinations followed methods described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Mountains, Valleys, and Coast Region* (USACE 2010) and *Field Indicators of Hydric Soils in the United Sates Version 8.1* (USDA 2017).

Other sources of existing information used to support wetland delineations included:

- Powell and Deer Lodge Counties Area Soil Survey (Soil Survey Staff 2016 and 2015, respectively)
- Montana Wetland and Riparian Framework (MTNHP 2014)
- 2016 National Wetland Plant List (Lichvar et al. 2016)

Wetland delineation data were collected to capture variations in vegetation communities, landscape position, and topography. Sample points were located on three transects within the project area to capture changes in elevation and plant communities. Additional paired points were located on a peninsula on the west side of the pond.

At each sample point, dominant plant species were identified and their absolute percent aerial coverage was estimated. Soils were characterized to a depth of 16 inches using a Munsell Soil Color Chart and standard soil texturing methodology (Munsell 2009 and NRCS 2016). The presence or absence of wetland hydrology was determined using observable indicators. Representative photographs were also taken at each sample point.

The extents of waters of the United States were identified in the project area by locating the ordinary high water mark (OHWM) along the shoreline of the pond. An OHWM is the landward extent of waters of the United States and it was identified using guidance from Title 33 of the Code of Federal Regulations, Part 328 "Definition of Waters of the Unites States"; Regulatory Guidance Letter number 05-05 from the Army Corps of Engineers (2005).

A Trimble GeoXT GPS unit was used to collect location data at each sample point, at representative OHWM locations, and at representative wetland boundary locations. These GPS data were used to digitize the entire extent of the OHWM and wetland boundaries in the project area using ArcGIS software, aerial imagery (USDA NAIP 2013), and detailed topography and elevation data derived from light detecting and ranging (LiDAR) data (Furgo Horizons 2011). Labeled pin flags were left in the field at each sample point and at representative wetland boundaries.

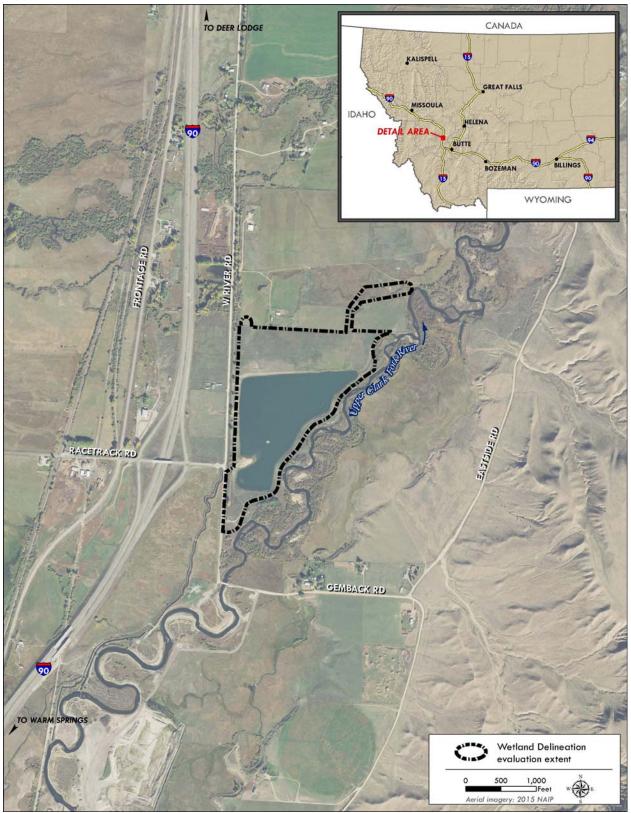


Figure 1. Racetrack Pond project area location.

# 3.0 Findings

Approximately 55 acres of wetlands and waters of the United States were delineated within the Racetrack Pond project area (Table 1). Delineated wetlands and waters of the United States are categorized and described according to *Cowardin Classification System of Wetlands and Deepwater Habitats* (Cowardin et al. 1979). Table 1 summarizes the acreage of delineated wetlands and waters of the United States in the project area and Figure 2 shows an overview of the delineated wetlands. Figure 3 through Figure 10 show details of the wetland delineation findings. Appendix A includes NWI and hydric soils maps and soil map unit descriptions. Appendix B includes sample point photos. Appendix C includes scanned images of wetland determination field forms.

Table 1. Summary of waters of the United States and wetland area (acres) delineated in the Racetrack Pond	
project area.	

Wetland Type	Existing Area (acres)	
Waters of the United States		
Racetrack Pond, Lacustrine, Limnetic, Unconsolidated Bottom, Intermittently Exposed, excavated (L1UBGx)	50.97	
Outlet channel, Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Semi-permanently Flooded (R2UB2F)	0.08	
Irrigation ditch, Riverine, Lower Perennial, Unconsolidated Bottom, Mud, Semi-permanently Flooded (R2UB3F)	0.02	
Side channel of Clark Fork River, Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded (R2UBH)	0.04	
Waters of the United States Sub-Total	51.11	
Palustrine Wetlands		
Palustrine Unconsolidated Bottom (PUB)	1.41	
Palustrine Aquatic Bed (PAB)	0.03	
Palustrine Emergent Wetland (PEM)	1.50	
Palustrine Scrub Shrub (PSS)	0.95	
Palustrine Wetlands Sub-Total	3.89	
Total area of waters of the United States and wetlands	55.00	

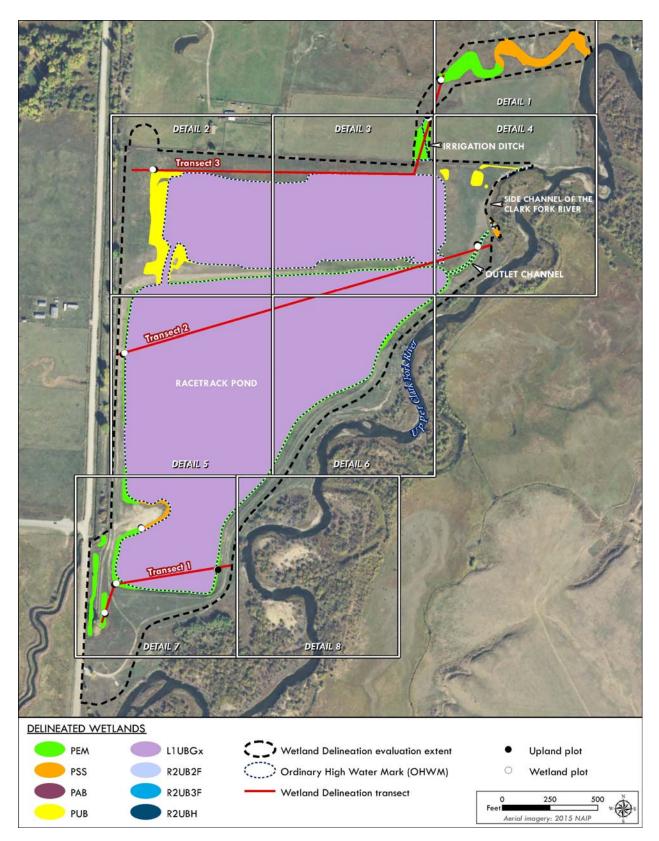


Figure 2. Overview of delineated wetlands within the Racetrack Pond project area.

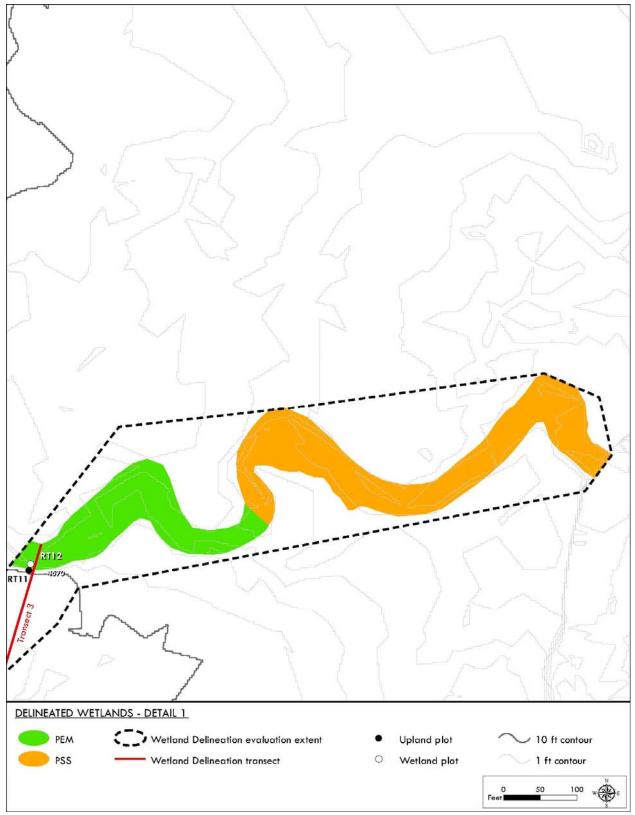


Figure 3. Detail 1 of 8 showing delineated wetlands within the Racetrack Pond project area.



Figure 4. Detail 2 of 8 showing delineated wetlands within the Racetrack Pond project area.

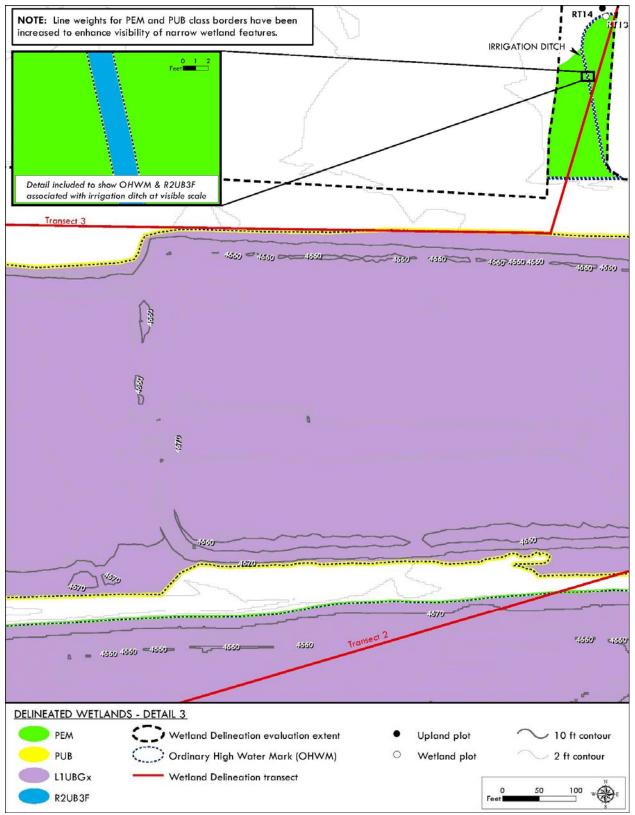


Figure 5. Detail 3 of 8 showing delineated wetlands within the Racetrack Pond project area.

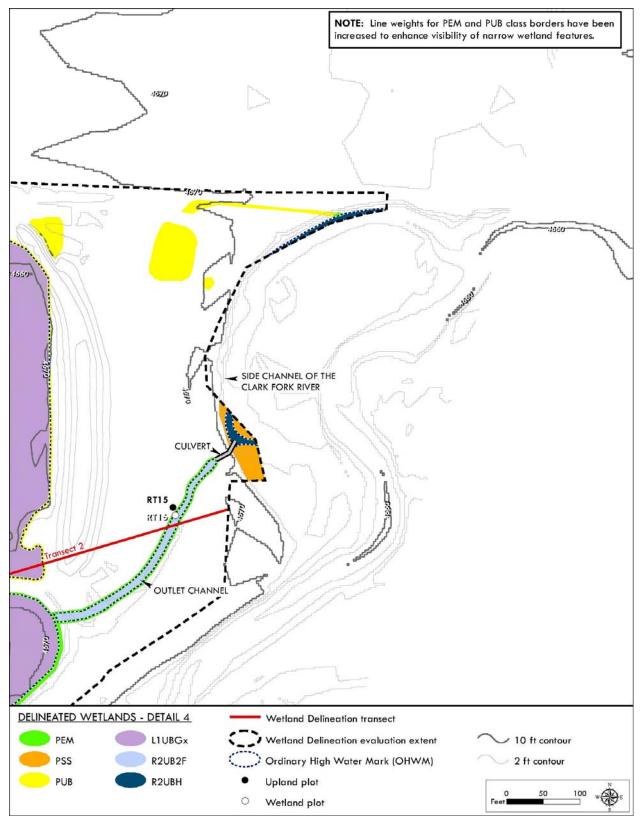


Figure 6. Detail 4 of 8 showing delineated wetlands within the Racetrack Pond project area.

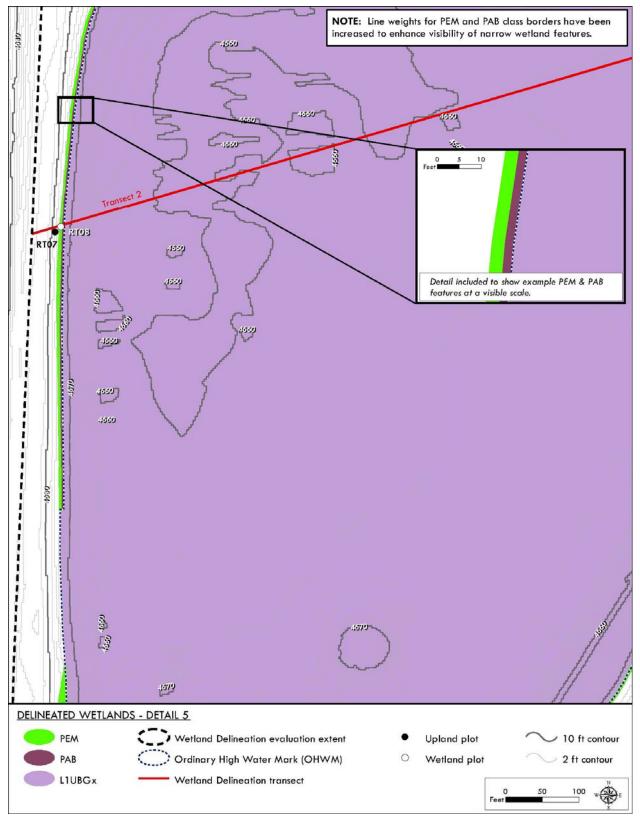


Figure 7. Detail 5 of 8 showing delineated wetlands within the Racetrack Pond project area.

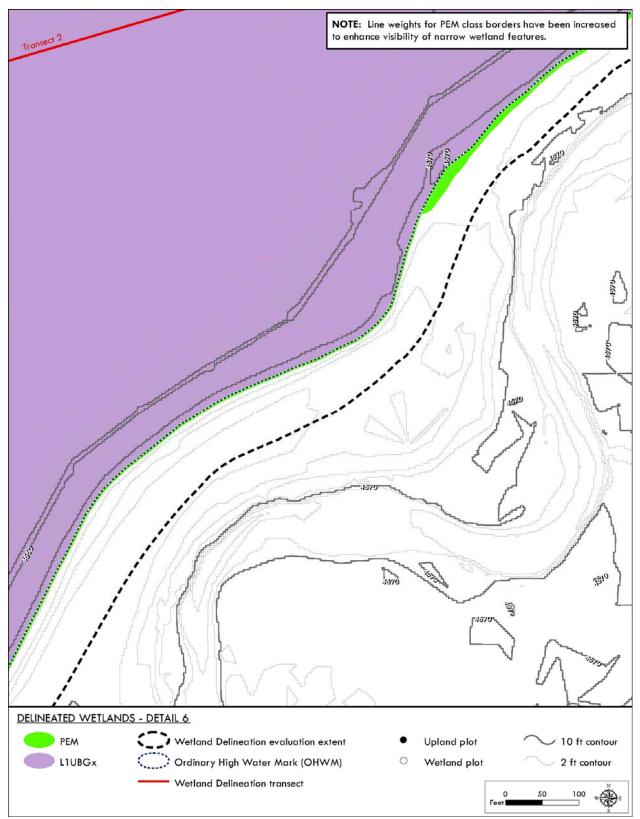


Figure 8. Detail 6 of 8 showing delineated wetlands within the Racetrack Pond project area.



Figure 9. Detail 7 of 8 showing delineated wetlands within the Racetrack Pond project area.

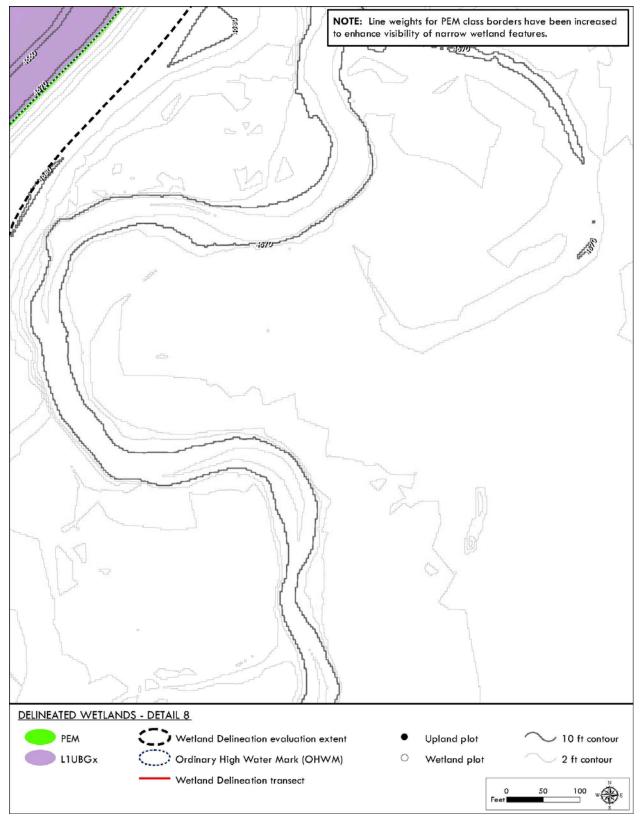


Figure 10. Detail 8 of 8 showing delineated wetlands within the Racetrack Pond project area.

# 3.1 Waters of the United States

Four areas of waters of the United States were identified in the Racetrack Pond project area including: Racetrack Pond, the outlet channel on the east side of the ponds, an irrigation ditch north of the pond, and a portion of a Clark Fork River side channel. Each of these features is described below.

# 3.1.1 Racetrack Pond

Racetrack Pond is believed to have been created during the construction of the Interstate 90 Racetrack Exit in the late 1960s and resulted from groundwater infiltration into the gravel pit that was used for borrow to build the exit. In 2016, the Montana Department of Environmental Quality (DEQ) developed an alluvium borrow source north of Racetrack Pond that was used as general fill within the Clark Fork River Phase 5 and 6 Remedial Action Project.

Surface water is present in Racetrack Pond throughout the year. Groundwater is the primary water source for the pond. The pond water elevation is controlled by an outlet culvert and channel located near the northeast corner of the pond. Water depth of the pond averages 8 to 10 feet, and substrate is generally cobble and small gravel. The OHWM, indicated by a line of perennial vegetation around the pond, defines the boundary of the lacustrine wetland. The slope of the shoreline is variable around the pond (Figure 11). Palustrine wetlands described in the following sections, occur adjacent to the lacustrine wetlands in the pond.

Racetrack Pond is assigned the following Cowardin classification: Lacustrine, Unconsolidated Bottom, Gravel, excavated.



Figure 11. The line of perennial vegetation on shorelines of Racetrack Pond indicates the OHWM. Steep slopes of the south side of Racetrack Pond (left photo) and more gradual slopes of the northwest side of Racetrack Pond (right photo).

# 3.1.2 Pond Outlet

An outlet channel on the northeast side of Racetrack Pond flows through culverts under a gravel access road, through a sand bottom channel, and then through another culvert into a side channel of the Clark Fork River (Figure 6, Figure 12). The straight outlet channel has a gradual slope from the road towards the side channel of the Clark Fork River. Small areas of patchy emergent vegetation encroach into the channel. The OHWM, indicated by a line of perennial vegetation along the outlet channel, is the boundary of this riverine wetland. Palustrine wetlands, described in the following sections, occur adjacent to the outlet channel.

The outlet channel is assigned the following Cowardin classification: Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Semi-permanently flooded.



Figure 12. Racetrack Pond outlet channel on the east side of the pond.

# 3.1.3 Irrigation Ditch

A portion of an irrigation ditch is located in the northeast portion of the project area. The irrigation ditch has a narrow, gently sloping, mud channel throughout most of its length. The OHWM, indicated by a line of perennial vegetation along the edge of the irrigation ditch, is the boundary of this riverine wetland. Palustrine wetlands, described in the following sections, or uplands occur adjacent to the irrigation ditch channel.

The irrigation ditch is assigned the following Cowardin classifications: Riverine, Lower Perennial, Unconsolidated Bottom, Mud, Semi-permanently flooded.

# 3.1.4 Clark Fork River Side Channel

A side channel of the Clark Fork River is located in the northeast corner east of the project area. Water flows from the pond outlet channel into a culvert that runs under a berm and through a small section of palustrine scrub shrub before routing flows into the side channel. The side channel also intersects the project area near the fenceline on the north side of the pond. A ditch outflow from a sediment retention basin used during excavation in 2016 enters the Clark Fork River side channel at this location. The OHWM, indicated by a line of perennial vegetation along the side channel, is the boundary of this riverine wetland (Figure 13).



Figure 13. Outlet channel culvert entrance into Clark Fork River side channel (left photo) and view looking north from the outlet channel at the Clark Fork River Side Channel (right photo).

# 3.2 Palustrine Wetlands

## 3.2.1 Palustrine Unconsolidated Bottom Wetlands

Palustrine unconsolidated bottom wetlands occur around the edges of the northern portion of Racetrack Pond (Figure 14) and in a drainage channel that routed water out of a sediment retention basin and into a side channel of the Clark Fork River in the northeast corner of the project area. This area was formerly an upland field that was excavated in 2016 to provide borrow material for the Clark Fork River, Phase 5 and 6 Remedial Action Project. The area was considered to have 'atypical, maninduced' wetlands due to the 2016 excavation that lowered the ground surface close to groundwater elevations. These lowered surfaces are similar to other adjacent locations that currently support palustrine emergent wetlands (i.e. sample point RT09). Soils at sample point RT09 included a layer with coated sand grains that met criteria for the Sandy Redox (S5) hydric soil indicator. The water table was observed at 8 inches below the ground surface and soils were saturated at 5 inches below the ground surface, meeting criteria for wetland hydrology indicators of High Water Table (A2) and Saturation (A3).



Figure 14. Wetland boundary between sample points RT09 (wetland) and RT10 (upland) looking east (left photo). Other recently excavated areas in the northern portion of Racetrack Pond that meet wetland criteria (right photo).

# 3.2.2 Palustrine Aquatic Bed Wetlands

A narrow, discontinuous band of palustrine aquatic bed wetland, approximately 3 feet wide, occurs along the southwest shoreline of Racetrack Pond (near sample point RT08) (Figure 16). The dominant vegetation is *Veronica americana* (American speedwell), an OBL species, passing the Dominance Test for hydrophytic vegetation. Surface water in the aquatic bed wetland is approximately 4 to 6 inches deep, meeting criteria for wetland hydrology. The extent of the palustrine aquatic bed wetland is marked by a transition to deeper water lacustrine wetland that lacks submerged vegetation on the pond side and by a transition to palustrine emergent wetland that is not inundated on the shoreline side.

## 3.2.3 Palustrine Emergent Wetlands

Palustrine emergent wetlands were delineated along the shoreline on the south side of Racetrack Pond (sample points RT02, RT08, and RT17), along an irrigation ditch in the northeastern part of the project area (sample point RT13), and along the outlet channel on the east side of the pond (sample point RT16). In these locations, the emergent wetlands occur in a band adjacent to the open water and the width varies with the angle of the shoreline slope. Palustrine emergent wetlands were also delineated in low lying swales in the hayfield on the north end of the project area and in excavated depressions on the southwest side of the project area (sample point RT04 and RT12).

The dominant species observed in emergent wetlands include *Alopecurus arundinaceus* (creeping meadow foxtail), *Juncus arcticus* (mountain rush), and *Poa pratensis* (Kentucky bluegrass). Vegetation communities in all palustrine emergent wetlands passed the Dominance Test for hydrophytic vegetation.

Soils vary depending on location and level of disturbance and include sands, loamy sands, sandy clay loams, clay loams, and peat. Soils met criteria for the hydric soil indicators of Black Histic (A3), Hydrogen Sulfide (A4), Depleted Below Dark Matrix (A11), Sandy Redox (S5), Loamy Mucky Mineral (F1), or Redox Dark Surface (F6). In addition, some sample points (RT08 and RT16) met the definition of hydric soils with observed saturation within 6 inches and/or shallow water tables within 12 inches of the soils surface that is of sufficient duration to support anaerobic conditions in the upper part (USDA/NRCS 2017).

Palustrine emergent wetlands along the shoreline of Racetrack Pond are seasonally saturated. Seepage from irrigation ditches located west of the pond supplement emergent wetland hydrology on this side of the pond. Palustrine emergent wetlands adjacent to the pond outlet channel are also seasonally saturated. Low lying swales and wetlands in the hayfield are seasonally flooded and may have shallow surface water early in the growing season. Primary wetland hydrology indicators observed in emergent wetlands include: Surface Water (A1), High Water Table (A2), Saturation (A3), and Hydrogen Sulfide Odor (C1).

Palustrine emergent wetland boundaries are indicated by a topographic slope break that corresponds with a change in the vegetation community to upland vegetation dominated by *Bromus inermis* (smooth brome), *Bromus tectorum* (cheatgrass), *Descurainia sophia* (herb sophia), *Poa pratensis* (Kentucky bluegrass), and *Sisymbrium altissimum* (tall tumble mustard) (Figure 15, Figure 16, and Figure 17). Representative upland sample points include: RT01, RT07, RT03, RT10, RT11, RT14, RT15, and RT18.

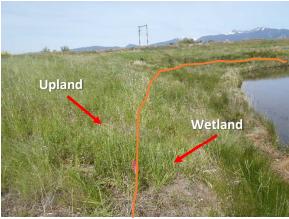


Figure 15. Palustrine emergent wetlands along Racetrack Pond with the orange line representing the wetland boundary between sample points RT01 (wetland) and RT02 (upland) looking west.



Figure 16. Palustrine emergent wetlands along the western edge of Racetrack Pond with the orange line representing the wetland boundary between sample points RT07 (upland) and RT08 (wetland) looking south. The blue line indicates the break between palustrine emergent wetland and palustrine aquatic bed wetlands.

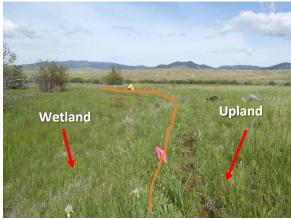


Figure 17. Palustrine emergent wetlands in a low swale in the northeast portion of the project area with the orange line representing the wetland boundary between sample points RT011 (upland) and RT012 (wetland) looking east.

# 3.2.4 Palustrine Scrub Shrub Wetlands

Palustrine scrub shrub wetlands were delineated along the shoreline of the peninsula on the west side of Racetrack Pond (sample point RT06), in a swale in the northeast portion of the project area, and next to the Clark Fork River side channel east of the pond outlet.

In the shrub layer the dominant species are *Betula occidentalis* (water birch), *Salix bebbiana* (Bebb's willow), *Salix boothii* (Booth's willow), and *Salix drummondiana* (Drummond's willow). The understory is dominated by a mix of native and non-native grasses and forbs. The vegetation community passed the Dominance Test for hydrophytic vegetation.

Observed soils included a layer of sandy loam over a layer of loamy sand with redoximorphic features, and the lower depths were sand mixed with cobbles. Soils met criteria for the hydric soil indicator of Sandy Redox (S5). Saturation (A3), a primary wetland hydrology indicator, was observed within scrub shrub wetlands. Secondary wetland hydrology indicators observed included Geomorphic Position (D2) and passing the FAC-Neutral Test (D5).

Scrub shrub wetlands along Racetrack Pond are seasonally saturated. Scrub shrub wetlands in the swale feature and near the pond outlet are seasonally flooded.

Scrub shrub wetlands along the Racetrack Pond are bound by the OHWM on the lower edge and uplands on the upper edge. The boundary between upland and palustrine scrub shrub wetland along Racetrack Pond is marked by a shift in vegetation to drier, upland species including *Bromus tectorum* (cheatgrass), *Descurainia sophia* (herb sophia), and *Poa pratensis* (Kentucky bluegrass) with sparse cover on gravelly substrate (sample plot RT05) (Figure 18). At scrub shrub wetlands in the swale, the wetland boundary occurs at the top of the slope where the vegetation transitions to upland hayfields.



Figure 18. Palustrine scrub shrub wetlands on the west side of Racetrack Pond, with the orange line indicating the wetland boundary between sample points RT05 (upland) and RT06 (wetland).

# 4.0 References

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Appendix A Additional Maps and Supplemental Information

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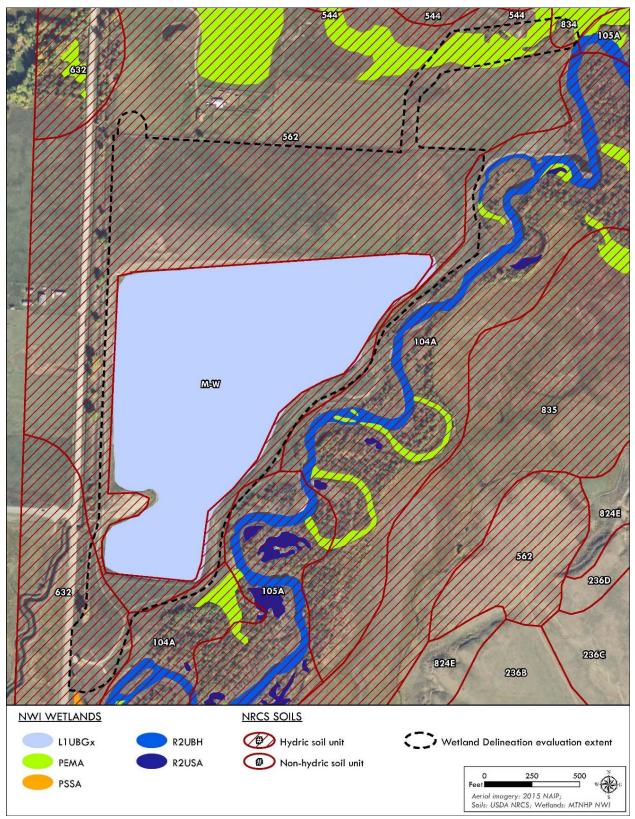


Figure A-1. Montana Wetland and Riparian Framework and soil map units within the Racetrack Pond project area (MTNHP 2014, Soils Survey Staff 2015, and Soils Survey Staff 2016).

Deer Lodge County Area, Montana

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation.]

# 104A--Fluvaquentic Endoaquolls-Slickens complex, 0 to 2 percent slopes, severely impacted

Mean annual precipitation: 10 to 14 inches Mean annual temperature: 39 to 45 degrees F Frost-free period: 90 to 105 days

#### Fluvaquentic Endoaquolls and similar soils

Extent: about 75 percent of the unit Landform(s): flood plains Slope gradient: 0 to 2 percent Parent material: alluvium Restrictive feature(s): none Seasonal high water table: approximately 18 inches Flooding hazard: occasional Ponding hazard: none

Soil loss tolerance (T factor): 3 Wind erodibility group (WEG): 3 Wind erodibility index (WEI): 86 Land capability class, nonirrigated: 7s Drainage class: poorly drained Hydric soil: yes Hydrologic group: C/D Potential frost action: moderate

#### Ecological site(s): ---

Representative soil profile:	Texture	Permeability	Available water capacity	pН	Kw	Kf
Oi 0 to 2 in	Slightly decomposed plant material	rapid		6.1 to 7.3		
C 2 to 8 in	Fine sandy loam	moderately rapid	0.6 to 0.8 in	4.5 to 7.3	.28	.28
Ab 8 to 22 in	Loam	moderate	2.1 to 2.4 in	6.6 to 7.8	.28	.28
Cb1 22 to 26 in	Very fine sandy loam	moderately rapid	0.5 to 0.6 in	7.4 to 8.4	.37	.37
Agb 26 to 38 in	Silty clay loam	moderately slow	1.8 to 2.0 in	7.4 to 8.4	.37	.37
Cb2 38 to 60 in	Gravelly coarse sand	rapid	0.4 to 0.9 in	7.4 to 8.4	.02	.02
Slickens						
	C 11	0 11 1	1 17 5			

# 5

Extent: about 10 percent of the unit	Soil loss tolerance (T factor):
Landform(s):	Wind erodibility group (WEG):
Slope gradient: 0 to 2 percent	Wind erodibility index (WEI):
Parent material:	Land capability class, nonirrigated:
Restrictive feature(s): none	Drainage class:
Seasonal high water table: greater than 60 inches	Hydric soil: no
Flooding hazard: none	Hydrologic group:
Ponding hazard: none	Potential frost action:
Ecological site(s):	
	Available water

Representative soil profile:	Texture	Permeability	capacity	pН	Kw	K
none						



**Conservation Service** 

Distribution Generation Date: 9/9/2015

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Deer Lodge County Area, Montana

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation.]

#### **Minor Components**

Slickens: 10 percent of the unit Aquic Cumulic Haplustolls and similar soils: 5 percent of the unit Saypo and similar soils: 3 percent of the unit Canarway and similar soils: 2 percent of the unit Riverwash: 1 percent of the unit Mccabe and similar soils: 3 percent of the unit Water: 1 percent of the unit



USDA Natural Resources **Conservation Service** 

Distribution Generation Date: 9/9/2015

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Powell County Area, Montana

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation.]

# 105A--Slickens-Fluvaquentic Endoaquolls complex, 0 to 2 percent slopes, severely impacted

Mean annual precipitation: Mean annual temperature: Frost-free period:

#### Slickens

Extent: about 50 percent of the unit	Soil loss tolerance (T factor):
Landform(s):	Wind erodibility group (WEG):
Slope gradient: 0 to 2 percent	Wind erodibility index (WEI):
Parent material:	Land capability class, nonirrigated:
Restrictive feature(s): none	Drainage class:
Seasonal high water table: greater than 60 inches	Hydric soil: no
Flooding hazard: none	Hydrologic group:
Ponding hazard: none	Potential frost action:
Ecological site(s):	

Representative soil profile:	Texture	Permeability	Available water capacity	pН	Kw	Kf
none						

## Fluvaquentic Endoaquolls and similar soils

Extent: about 35 percent of the unit	Soil loss tolerance (T factor): 3
Landform(s): flood plains	Wind erodibility group (WEG): 3
Slope gradient: 0 to 2 percent	Wind erodibility index (WEI): 86
Parent material: alluvium	Land capability class, nonirrigated: 7s
Restrictive feature(s): none	Drainage class: poorly drained
Seasonal high water table: approximately 18 inches	Hydric soil: yes
Flooding hazard: occasional	Hydrologic group: C/D
Ponding hazard: none	Potential frost action: moderate

Ecological site(s): ---

Available water Permeability pH Kw Kf Texture Representative soil profile: capacity Oi -- 0 to 2 in Slightly decomposed plant material rapid 6.1 to 7.3 С ---2 to 8 in Fine sandy loam moderately rapid 0.6 to 0.8 in 4.5 to 7.3 .28 .28 Ab -- 8 to 22 in Loam moderate 2.1 to 2.4 in 6.6 to 7.8 .28 .28 Cb1 -- 22 to 26 in Very fine sandy loam moderately rapid 0.5 to 0.6 in 7.4 to 8.4 .37 .37 Agb -- 26 to 38 in Silty clay loam moderately slow 1.8 to 2.0 in 7.4 to 8.4 .37 .37 Cb2 -- 38 to 60 in Gravelly coarse sand rapid 0.4 to 0.9 in 7.4 to 8.4 .02 .02



USDA Natural Resources **Conservation Service** 

Distribution Generation Date:

Page 1 of 2

Powell County Area, Montana

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation.]

#### **Minor Components**

Aquic Cumulic Haplustolls and similar soils: 5 percent of the unit Saypo and similar soils: 3 percent of the unit Canarway and similar soils: 2 percent of the unit Riverwash: 1 percent of the unit Mccabe and similar soils: 3 percent of the unit Water: 1 percent of the unit



USDA Natural Resources **Conservation Service** 

Distribution Generation Date:

Page 2 of 2

Powell County Area, Montana

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation.]

## 562--Carten loam, 0 to 4 percent slopes

Mean annual precipitation: 10 to 14 inches Mean annual temperature: 39 to 45 degrees F Frost-free period: 90 to 105 days

#### Carten and similar soils

Extent: about 85 percent of the unit Landform(s): outwash plains Slope gradient: 0 to 4 percent Parent material: alluvium Restrictive feature(s): none Seasonal high water table: approximately 33 inches Flooding hazard: none Ponding hazard: none

Soil loss tolerance (T factor): 2 Wind erodibility group (WEG): 6 Wind erodibility index (WEI): 48 Land capability class, nonirrigated: 4w Drainage class: somewhat poorly drained Hydric soil: no Hydrologic group: C Potential frost action: moderate

Ecological site(s): Subirrigated (Sb) 10-14" p.z.

Representativ	e soil profile:	Texture	Permeability	Available water capacity	pН	Kw	Kf
A	0 to 7 in	Loam	moderate	1.0 to 1.3 in	6.6 to 7.8	.28	.28
Bw	7 to 11 in	Loam	moderately slow	0.6 to 0.7 in	7.4 to 8.4	.28	.28
Bk	11 to 17 in	Gravelly clay loam	moderately slow	0.8 to 0.9 in	7.4 to 8.4	.15	.32
2C	17 to 60 in	Very gravelly loamy sand	rapid	1.3 to 2.1 in	7.4 to 8.4	.05	.15

#### Blossberg and similar soils

Extent: about 15 percent of the unit Soil loss tolerance (T factor): 3 Landform(s): depressions Wind erodibility group (WEG): 6 Wind erodibility index (WEI): 48 Slope gradient: 0 to 4 percent Parent material: alluvium Land capability class, nonirrigated: 3w Restrictive feature(s): none Drainage class: poorly drained Seasonal high water table: approximately 18 inches Hydric soil: yes Flooding hazard: none Hydrologic group: B/D Ponding hazard: none Potential frost action: high

Ecological site(s):

Representative soil profile:	Texture	Permeability	Available water capacity	pН	Kw	Kf
A 0 to 14 in		moderate	2.0 to 2.6 in	6.6 to 7.8	.20	.20
Bg1 14 to 23 in		moderate	1.3 to 1.6 in	7.4 to 8.4	.28	.28
Bg2 23 to 28 in		moderately rapid	0.5 to 0.6 in	7.4 to 8.4	.17	.37
2Cg 28 to 60 in		rapid	0.6 to 1.0 in	7.4 to 8.4	.02	.02



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Powell County Area, Montana

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation.]

## **Minor Components**

Blossberg and similar soils: 15 percent of the unit



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Deer Lodge County Area, Montana

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation.]

# 632B--Bushong loam, 0 to 4 percent slopes

Mean annual precipitation: 10 to 14 inches Mean annual temperature: 39 to 45 degrees F Frost-free period: 90 to 105 days

### Bushong and similar soils

Extent: about 85 percent of the unit Landform(s): stream terraces Slope gradient: 0 to 4 percent Parent material: alluvium Restrictive feature(s): none Seasonal high water table: approximately 18 inches Flooding hazard: none Ponding hazard: none

Soil loss tolerance (T factor): 2 Wind erodibility group (WEG): 6 Wind erodibility index (WEI): 48 Land capability class, nonirrigated: 6w Drainage class: poorly drained Hydric soil: yes Hydrologic group: B/D Potential frost action: moderate

Ecological site(s): Wet Meadow (WM) 15-19" p.z.

Representativ	ve soil profile.	Texture	Permeability	Available water capacity	pН	Kw	Kf
Oi	0 to 2 in	Slightly decomposed plant material	very rapid		5.8 to 7.0		
A	2 to 6 in	Loam	moderate	0.6 to 0.7 in	7.4 to 8.4	.24	.24
Bk	6 to 17 in	Gravelly loam	moderate	1.7 to 2.0 in	7.4 to 8.4	.20	.32
2C	17 to 60 in	Extremely gravelly sand	rapid	2.2 to 3.0 in	6.6 to 7.8	.02	.02

### **Minor Components**

Canarway and similar soils: 8 percent of the unit Blossberg and similar soils: 7 percent of the unit



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Deer Lodge County Area, Montana

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation.]

# 834B--Blossberg loam, 0 to 4 percent slopes, rarely flooded

Mean annual precipitation: 10 to 14 inches Mean annual temperature: 39 to 45 degrees F Frost-free period: 90 to 105 days

## Blossberg and similar soils

Extent: about 85 percent of the unit Landform(s): flood plains Slope gradient: 0 to 4 percent Parent material: loamy alluvium over sandy and gravelly alluvium Restrictive feature(s): none Seasonal high water table: approximately 18 inches Flooding hazard: rare Ponding hazard: none

Soil loss tolerance (T factor): 3 Wind erodibility group (WEG): 6 Wind erodibility index (WEI): 48 Land capability class, nonirrigated: 5w Drainage class: poorly drained Hydric soil: yes Hydrologic group: B/D Potential frost action: high

Ecological site(s): Wet Meadow (WM) 10-14" p.z.

Representative soil profile:	Texture	Permeability	Available water capacity	pН	Kw	Kf
A 0 to 14 in	Loam	moderate	2.0 to 2.6 in	6.6 to 7.8	.20	.20
Bg1 14 to 23 in	Loam	moderate	1.3 to 1.6 in	7.4 to 8.4	.28	.28
Bg2 23 to 28 in	Gravelly loam	moderately rapid	0.5 to 0.6 in	7.4 to 8.4	.17	.37
2Cg 28 to 60 in	Very cobbly sand	rapid	0.6 to 1.0 in	7.4 to 8.4	.02	.02

#### **Minor Components**

Dougcliff and similar soils: 4 percent of the unit Gregson and similar soils: 4 percent of the unit Mannixlee and similar soils: 4 percent of the unit Bushong and similar soils: 3 percent of the unit



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Appendix B Sample Point Photos

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Sample Point RT01 – Upland



Sample Point RT02 -- Wetland



Sample Point RT03 -- Upland



Sample Point RT04 -- Wetland



Sample Point RT05 – Upland



Sample Point RT06 – Wetland



Sample Point RT07 -- Upland



Sample Point RT08 -- Wetland



Sample Point RT09 – Wetland



Sample Point RT10 – Upland



Sample Point RT11 -- Upland



Sample Point RT12 -- Wetland



Sample Point RT13 -- Wetland



Sample Point RT14 -- Upland



Sample Point RT15 -- Upland



Sample Point RT16 -- Wetland



Sample Point RT17 – Wetland



Sample Point RT18 – Upland

Appendix C Wetland Determination Forms

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0 0		Nountains, Valleys, and Coast Region
Project/Site: Kacetrack ford	City/County: 16	well County Sampling Date: Olo De
pplicant/Owner: Fish, Wildlife & Part		State: MT Sampling Point: State:
nvestigator(s): <u>K. Comstead</u> andform (hillslope, terrace, etc.): <u>hillslope</u>		Range: SILe, TOLEN, ROGW
where in (IDD) E Park IN a 2	Local relief (conca	ave, convex, none): <u>Concave</u> Slope (%): <u>3</u> U Long: <u>112944'39,174"</u> Datum: <u>1068</u>
oil Map Unit Name: 562- Conten		
		NWI classification: NON
re climatic / hydrologic conditions on the site typical		
re Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u></u> re Vegetation <u>NO</u> , Soil <u>No</u> , or Hydrology <u>N</u>		Are "Normal Circumstances" present? Yes <u>No</u> No
		If needed, explain any answers in Remarks.)
UMMARY OF FINDINGS – Attach site	map showing sampling poin	nt locations, transects, important features, e
	NoX	A REAL PROPERTY AND A REAL
	No X Is the Same No X within a We	
Wetland Hydrology Present? Yes Remarks: Boundary Indicators on		
Lincus arcticus extends into	upland areas.	smeath brome and elevation
EGETATION – Use scientific names of	plants.	Trace Dark Sudare (A12)
ree Stratum (Plot size: 5×30 fF)	Absolute Dominant Indicat	or Dominance Test worksheet:
I. (Plot size: <u>3~50 fr</u> )	<u>% Cover Species?</u> Status	Number of Dominant Species
		That Are OBL, FACW, or FAC: (A)
2 ca		Total Number of Dominant
		Species Across All Strata: (B)
	= Total Cover	That Are OBL, FACW, or FAC:(A/E
apling/Shrub Stratum (Plot size: <u>5×30</u> 4)		Prevalence Index worksheet:
·		
		OBL species x 1 =
		FACW species $20 \times 2 = 40$
		FAC species $\underline{S}$ x 3 = $\underline{IS}$
erb Stratum (Plot size: 5×5 ()	= Total Cover	FACU species x 4 =
Broomes me on 15	30 V UPI	UPL species $30 \times 5 = 150$ Column Totals: $55$ (A) $205$ (B)
Juneus arcticus	20 Y FACH	
Cover SD.	5 N FAC	Prevalence Index = B/A = 15
		Hydrophytic Vegetation Indicators:    1 - Rapid Test for Hydrophytic Vegetation
All shares and the second starts		2 - Dominance Test is >50%
and the second second second second	A section of a section of the sectio	$-$ 3 - Prevalence Index is $\leq 3.0^1$
from the second second second	and the second second	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
		data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants <sup>1</sup>
		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
)		be present, unless disturbed or problematic.
)	55 = Total Cover	
0 I loody Vine Stratum (Plot size: <u>5×30 A</u> .)	<u></u> = Total Cover	
0 I Ioody Vine Stratum (Plot size: <u>5×30 A</u> .)	<u>55</u> = Total Cover	– Hydrophytic
0 I Ioody Vine Stratum (Plot size: <u>5×30 A</u> .)		Vegetation
0 I (oody Vine Stratum (Plot size: <u>5×30 A</u> )	= Total Cover	
b 1 Moody Vine Stratum (Plot size: <u>5×30 A</u> ) Bare Ground in Herb Stratum <u>0</u> emarks: Lifter overs ~ 50% Side stope apports to the	= Total Cover	Vegetation Present? Yes No X

rofile Description: (Describe to the dept	h needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	and the second se
(inches) Color (moist) %	Color (moist) Type <sup>1</sup> Loc <sup>2</sup>	
5-2 10YR 2/2 100		sandy clay loam
2-18+ 10-18 2/1 100		Sanajala loan
	Later A Constant and A	
en de la seriera de la companya de l La companya de la comp		
traviated a important for heres wh	De la contraction de Contract Sand G	rains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Type: C=Concentration, D=Depletion, RM= Hydric Soil Indicators: (Applicable to all	Reduced Matrix, CS=Covered or Coated Sand G	Indicators for Problematic Hydric Soils <sup>3</sup> :
	Sandy Redox (S5)	2 cm Muck (A10)
Histosol (A1)	Stripped Matrix (S6)	Red Parent Material (TF2)
Histic Epipedon (A2)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	a second second second
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed of problematic.
Restrictive Layer (if present):		
Туре:		Hydric Soil Present? Yes No
Depth (inches):		Hydric Soli Present? Tes No
	- Tota Const	And the second sec
HYDROLOGY Wetland Hydrology Indicators:		
Wetland Hydrology Indicators:	d; check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	ed; check all that apply) Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	ed; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (CS
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Sait Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Reference and the second secon	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)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Sait Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Re     Presence of Reduced Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Re     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solls (0	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Re     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Saturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (0 Stunted or Stressed Plants (D1) (LRR B7)     Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ra Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR B7)     Other (Explain in Remarks)     (B8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Saturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require         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 Imagery (I         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ra     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solis (0     Stunted or Stressed Plants (D1) (LRR B7)     Other (Explain in Remarks)     (B8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Saturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ra     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solls ((     Stunted or Stressed Plants (D1) (LRR B7)     Other (Explain in Remarks)     (B8)     No Depth (inches):     No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require         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 Imagery (I         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Saturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require         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 Imagery (I         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ra     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solls ((     Stunted or Stressed Plants (D1) (LRR B7)     Other (Explain in Remarks)     (B8)     No Depth (inches):     No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     A)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require         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 Imagery (I         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     A)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     A)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Saturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)

-112.74417S

andform (hillslope, terrace, etc.): <u>hill Slop</u> ubregion (LRR): <u>E - Jacks http:</u> Ran	pe referent Lat: 41 10am, 0-1	_ Local relief (concave 6 16 08.794" N 146 Stopes	ange: <u>SILe</u> , <u>TOLN</u> , <u>ROAW</u> , convex, none): <u>NOR</u> Slope (%): <u>2, 9</u> Long: <u>1172'44'39.029'W</u> Datum: <u>MCSS</u> NWI classification: <u>NOR</u>
re Vegetation <u>No</u> , Soil <u>No</u> , or Hydrold re Vegetation <u>No</u> , Soil <u>No</u> , or Hydrold BUMMARY OF FINDINGS – Attach Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	ogy <u>PO</u> significant ogy <u>NO</u> naturally p <b>site map showin</b> s X No s X No	ly disturbed? Are roblematic? (If n ig sampling point Is the Sample	"Normal Circumstances" present? Yes <u>K</u> No <u></u> needed, explain any answers in Remarks.) <b>locations, transects, important features, etc</b> d Area
EGETATION – Use scientific name	a solaro	anno () anno an a' () (anno 1930 - Anno () 1930 - Anno () 1930 - Anno () 1930 - Anno ()	
<u>Tree Stratum</u> (Plot size: <u>5× 3○ ⊕</u> ) 1.	<u>% Cove</u>	e Dominant Indicator r Species? Status	Dominance Test worksheet:           Number of Dominant Species           That Are OBL, FACW, or FAC:
2			Total Number of Dominant Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size: <u>SX 30</u>	14	_ = Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet:
			Total % Cover of:         Multiply by:           OBL species         x 1 =           FACW species         x 2 =           FAC species         x 3 =           FAC species         x 4 =
Herb Stratum (Plot size: 5×5A) Burnus intermis	<u>5</u>	_ = Total Cover	FACU species         x 4 =           UPL species         x 5 =           Column Totals:         (A)
Da pratensis	32		Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup>
 			4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)     5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1 (Plot size: <u>5× 3</u> 0		_= Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic
6 Bare Ground in Herb Stratum	Laboration Internet	Total Cover	Vegetation Present? Yes X No
Remarks: littler about 3070 100-0004 point	of herba	ceans plat	

		11-4-
Sampling	Doint:	VI

Depth	Matrix	%	Color (moist	Redox Features	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rer	narks
inches)	Color (moist)			<u> </u>	Турс		clay loan		Tentopit
2-2		100	54R3/4	10	C	M	clay loour	10000	and and and
-10	104R3/1		27K-17			100	Saudy		A COLUMN
0-16+	104R2/1	100					Clay Toom		- The second second
M									Send In
Type: C=C	oncentration, D=Dep	oletion, RM=	Reduced Matri	x, CS=Covered	d or Coate	ed Sand G	rains. <sup>2</sup> Loo	ation: PL=Pore Li	ning, M=Matrix.
lydric Soil	Indicators: (Applic	able to all L	RRs, unless	otherwise note	ed.)		Indicato	rs for Problemati	c Hydric Soils":
Histosol	(A1)	A 187 .	Sandy Rec	dox (S5)				n Muck (A10)	50)
Histic Ep	oipedon (A2)	-	Stripped M					Parent Material (7 Shallow Dark Su	
	istic (A3)			cky Mineral (F1		t MLRA 1		er (Explain in Rem	
	en Sulfide (A4)	- (0.4.4)	Loamy Gle Depleted M	eyed Matrix (F2	)				-
	d Below Dark Surfac ark Surface (A12)	ce (A11) .		rk Surface (F6)			<sup>3</sup> Indicato	ors of hydrophytic v	regetation and
	Aucky Mineral (S1)			Dark Surface (F	7)		wetla	nd hydrology must	t be present,
	Gleyed Matrix (S4)	STORY CONT.	The second se	pressions (F8)			unles	s disturbed or prol	olematic.
	Layer (if present):	Commenter of							
Type:		1							
Depth (in	ches):	THESE IS THE	marke taken				Hydric Soil	Present? Yes	X No
Remarks:									
YDROLO	DOGY	A municipal Weinit - Di Index Animit -		in metalli		-	(A.98		
Wetland Hy	CAL SAVES		I; check all that	t apply)					or more required)
Primary Indi	OGY drology Indicators		Wate	er-Stained Leav		except		Vater-Stained Leav	or more required) ves (B9) (MLRA 1,
Wetland Hy Primary Indi Surface	OGY drology Indicators cators (minimum of		Wate			except	_ '	Vater-Stained Lear 4A, and 4B)	ves (B9) (MLRA 1,
Wetland Hy Primary Indi Surface	OGY drology Indicators cators (minimum of Water (A1) ater Table (A2)		Wate M	er-Stained Leav I <b>LRA 1, 2, 4A,</b> a Crust (B11)	and 4B)	except		Vater-Stained Lear 4A, and 4B) Drainage Patterns	ves (B9) ( <b>MLRA 1,</b> (B10)
Wetland Hy Primary Indi Surface High W Saturati	OGY drology Indicators cators (minimum of Water (A1) ater Table (A2)		Wate M Salt ( Aqua	er-Stained Leav I <b>LRA 1, 2, 4A,</b> a Crust (B11) atic Invertebrate	and 4B) es (B13)	except	`	Vater-Stained Lean 4A, and 4B) Drainage Patterns Dry-Season Water	ves (B9) ( <b>MLRA 1,</b> (B10) Table (C2)
Wetland Hy Primary Indi Surface High W X Saturati Water N Sedime	DGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2)		Wate M Salt ( Aqua Hydr	er-Stained Leav I <b>LRA 1, 2, 4A</b> , a Crust (B11) atic Invertebrate ogen Sulfide O	and 4B) es (B13) edor (C1)			Water-Stained Lean 4A, and 4B) Drainage Patterns Dry-Season Water Saturation Visible of	ves (B9) ( <b>MLRA 1,</b> (B10) Table (C2) on Aerial Imagery (C
Wetland Hy Primary Indi Surface High W. Saturati Water M Sedime Drift De	DGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) posits (B3)		Wate M Salt ( Aqua Hydr Oxid	er-Stained Leav ILRA 1, 2, 4A, a Crust (B11) atic Invertebrate rogen Sulfide O ized Rhizosphe	and 4B) es (B13) edor (C1) eres along	g Living Ro	[ [ [ [ 	Water-Stained Lean 4A, and 4B) Orainage Patterns Ory-Season Water Saturation Visible of Geomorphic Positio	ves (B9) ( <b>MLRA 1,</b> (B10) Table (C2) on Aerial Imagery (C on (D2)
Wetland Hy Primary Indi Surface High W. Saturati Water M Sedime Drift De Algal M	PGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) ioposits (B3) iat or Crust (B4)		Wate M Salt Aqua Hydr Oxid Pres	er-Stained Leav ILRA 1, 2, 4A, a Crust (B11) atic Invertebrate ogen Sulfide O ized Rhizosphe ence of Reduce	and 4B) es (B13) edor (C1) eres along ed Iron (C	g Living Ro	[ [ [ 	Vater-Stained Lean 4A, and 4B) Orainage Patterns Ory-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I	ves (B9) ( <b>MLRA 1,</b> (B10) Table (C2) on Aerial Imagery (C on (D2) D3)
Wetland Hy Primary Indi Surface High W. X Saturati Water M Sedime Drift De Algal M Iron De	PGY drology Indicators cators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		Wate M Salt ( Aqua Hydr Oxid Pres Rece	er-Stained Leav ILRA 1, 2, 4A, a Crust (B11) atic Invertebrate ogen Sulfide O ized Rhizosphe ence of Reduct ent Iron Reduct	and 4B) es (B13) edor (C1) eres along ed Iron (C ion in Till	g Living Ro C4) ed Soils (C		Vater-Stained Leav 4A, and 4B) Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I FAC-Neutral Test (	ves (B9) ( <b>MLRA 1,</b> (B10) Table (C2) on Aerial Imagery (C on (D2) D3) D5)
Wetland Hy Primary Indi Surface High W Saturati Water N Sedime Drift De Algal M Iron De Surface	PGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) iat or Crust (B4) posits (B5) a Soil Cracks (B6)	one required	Wate M Salt 0 Aqua Hydr Oxid Pres Rece Stun	er-Stained Leav ILRA 1, 2, 4A, a Crust (B11) atic Invertebrate rogen Sulfide O ized Rhizosphe ence of Reduce ent Iron Reduct ted or Stressed	and 4B) es (B13) edor (C1) eres along ed Iron (C ion in Till d Plants (	g Living Ro C4) ed Soils (C		Vater-Stained Lean 4A, and 4B) Orainage Patterns Ory-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I	(B10) Table (C2) on Aerial Imagery (C on (D2) O3) D5) \$ (D6) (LRR A)
Wetland Hy Primary Indi Surface High W. X Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat	PGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeria	one required	Wate M Salt ( Aqua Hydr Oxid Pres Reca Stun 7) Othe	er-Stained Leav ILRA 1, 2, 4A, a Crust (B11) atic Invertebrate ogen Sulfide O ized Rhizosphe ence of Reduct ent Iron Reduct	and 4B) es (B13) edor (C1) eres along ed Iron (C ion in Till d Plants (	g Living Ro C4) ed Soils (C		Vater-Stained Leav 4A, and 4B) Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I FAC-Neutral Test ( Raised Ant Mound	(B10) Table (C2) on Aerial Imagery (C on (D2) O3) D5) \$ (D6) (LRR A)
Wetland Hy Primary Indi Surface High W. X Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparse	PGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) tion Visible on Aeria ly Vegetated Conca	one required	Wate M Salt ( Aqua Hydr Oxid Pres Reca Stun 7) Othe	er-Stained Leav ILRA 1, 2, 4A, a Crust (B11) atic Invertebrate rogen Sulfide O ized Rhizosphe ence of Reduce ent Iron Reduct ted or Stressed	and 4B) es (B13) edor (C1) eres along ed Iron (C ion in Till d Plants (	g Living Ro C4) ed Soils (C		Vater-Stained Leav 4A, and 4B) Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I FAC-Neutral Test ( Raised Ant Mound	(B10) Table (C2) on Aerial Imagery (C on (D2) O3) D5) \$ (D6) (LRR A)
Wetland Hy Primary Indi Surface High W Saturati Water N Sedime Drift De Algal M Iron De Surface Inundat Sparse Field Obse	DGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) iion Visible on Aeria ly Vegetated Conca rvations:	one required I Imagery (B ve Surface (	Wate M Salt ( Aqua Hydr Oxid Pres Rece Stun 7) Othe 38)	er-Stained Leav ILRA 1, 2, 4A, i Crust (B11) atic Invertebrate ogen Sulfide O ized Rhizosphe ence of Reduce ent Iron Reduct ted or Stressed rr (Explain in Re	and 4B) es (B13) edor (C1) eres along ed Iron (C ion in Till d Plants (	g Living Ro C4) ed Soils (C		Vater-Stained Leav 4A, and 4B) Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I FAC-Neutral Test ( Raised Ant Mound	(B10) Table (C2) on Aerial Imagery (C on (D2) O3) D5) \$ (D6) (LRR A)
Wetland Hy Primary Indi Surface High W X Saturati Water N Sedime Drift De Algal M Iron De Surface Field Obse Surface Wa	DGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aeria ly Vegetated Conca rvations: iter Present?	I Imagery (B ve Surface () Yes	Wate Salt ( Aque Hydr Oxid Pres Rece Stun 7) Othe B8)	er-Stained Leav ILRA 1, 2, 4A, i Crust (B11) titic Invertebrate ogen Sulfide O ized Rhizosphe ence of Reduca ted or Stressed ent Iron Reduct ted or Stressed er (Explain in Re-	and 4B) es (B13) edor (C1) eres along ed Iron (C ion in Till d Plants (	g Living Ro C4) ed Soils (C		Vater-Stained Leav 4A, and 4B) Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I FAC-Neutral Test ( Raised Ant Mound	(B10) Table (C2) on Aerial Imagery (C on (D2) O3) D5) \$ (D6) (LRR A)
Wetland Hy Primary Indi	DGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aeria ly Vegetated Conca rvations: ater Present? Present? Present? present?	I Imagery (B ve Surface ( Yes Yes Yes	Wate Salt ( Aqua Hydr Oxid Pres Recc Stun 7) Othe B8) No Dep No Dep	er-Stained Leav ILRA 1, 2, 4A, i Crust (B11) atic Invertebrate ogen Sulfide O ized Rhizosphe ence of Reduct ent Iron Reduct ted or Stressed er (Explain in Re- both (inches): oth (inches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C ion in Till d Plants ( emarks)	g Living Rc 24) ed Soils (C D1) (LRR		Vater-Stained Leav 4A, and 4B) Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I FAC-Neutral Test ( Raised Ant Mound	ves (B9) ( <b>MLRA 1</b> , (B10) Table (C2) on Aerial Imagery (C on (D2) D3) D5) s (D6) ( <b>LRR A</b> ) nocks (D7)
Wetland Hy Primary Indi	DGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aeria ly Vegetated Conca rvations: iter Present? a Present?	I Imagery (B ve Surface ( Yes Yes Yes	Wate Salt ( Aqua Hydr Oxid Pres Recc Stun 7) Othe B8) No Dep No Dep	er-Stained Leav ILRA 1, 2, 4A, i Crust (B11) atic Invertebrate ogen Sulfide O ized Rhizosphe ence of Reduct ent Iron Reduct ted or Stressed er (Explain in Re- both (inches): oth (inches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C ion in Till d Plants ( emarks)	g Living Rc 24) ed Soils (C D1) (LRR		Vater-Stained Leav 4A, and 4B) Drainage Patterns Ony-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I FAC-Neutral Test ( Raised Ant Mounds Frost-Heave Humm	ves (B9) ( <b>MLRA 1</b> , (B10) Table (C2) on Aerial Imagery (C on (D2) D3) D5) s (D6) ( <b>LRR A</b> ) nocks (D7)
Wetland Hy Primary Indi	DGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aeria ly Vegetated Conca rvations: ater Present? Present? Present? present?	I Imagery (B ve Surface ( Yes Yes Yes	Wate Salt ( Aqua Hydr Oxid Pres Recc Stun 7) Othe B8) No Dep No Dep	er-Stained Leav ILRA 1, 2, 4A, i Crust (B11) atic Invertebrate ogen Sulfide O ized Rhizosphe ence of Reduct ent Iron Reduct ted or Stressed er (Explain in Re- both (inches): oth (inches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C ion in Till d Plants ( emarks)	g Living Rc 24) ed Soils (C D1) (LRR		Vater-Stained Leav 4A, and 4B) Drainage Patterns Ony-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I FAC-Neutral Test ( Raised Ant Mounds Frost-Heave Humm	ves (B9) ( <b>MLRA 1</b> , (B10) Table (C2) on Aerial Imagery (C on (D2) D3) D5) s (D6) ( <b>LRR A</b> ) nocks (D7)
Wetland Hy Primary Indi Surface High W. Saturati Water M Sedime Drift De Algal M Iron De Surface Field Obse Surface Wa Water Table Saturation F (includes ca Describe Ro	PGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) and Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aeria ly Vegetated Conca rvations: ater Present? apillary fringe) ecorded Data (streaged)	I Imagery (B ve Surface ( Yes Yes Yes	Wate Salt ( Aqua Hydr Oxid Pres Recc Stun 7) Othe B8) No Dep No Dep	er-Stained Leav ILRA 1, 2, 4A, i Crust (B11) atic Invertebrate ogen Sulfide O ized Rhizosphe ence of Reduct ent Iron Reduct ted or Stressed er (Explain in Re- both (inches): oth (inches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C ion in Till d Plants ( emarks)	g Living Rc 24) ed Soils (C D1) (LRR		Vater-Stained Leav 4A, and 4B) Drainage Patterns Ony-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I FAC-Neutral Test ( Raised Ant Mounds Frost-Heave Humm	ves (B9) ( <b>MLRA 1</b> , (B10) Table (C2) on Aerial Imagery (C on (D2) D3) D5) s (D6) ( <b>LRR A</b> ) nocks (D7)
Wetland Hy Primary Indi Surface High W. Saturati Water M Sedime Drift De Algal M Iron De Surface Field Obse Surface Wa Water Table Saturation F (includes ca Describe Ro	PGY drology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) and Deposits (B2) posits (B3) at or Crust (B4) posits (B5) a Soil Cracks (B6) ion Visible on Aeria ly Vegetated Conca rvations: ater Present? apillary fringe) ecorded Data (streaged)	I Imagery (B ve Surface ( Yes Yes Yes	Wate Salt ( Aqua Hydr Oxid Pres Recc Stun 7) Othe B8) No Dep No Dep	er-Stained Leav ILRA 1, 2, 4A, i Crust (B11) atic Invertebrate ogen Sulfide O ized Rhizosphe ence of Reduct ent Iron Reduct ted or Stressed er (Explain in Re- both (inches): oth (inches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C ion in Till d Plants ( emarks)	g Living Rc 24) ed Soils (C D1) (LRR		Vater-Stained Leav 4A, and 4B) Drainage Patterns Ony-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I FAC-Neutral Test ( Raised Ant Mounds Frost-Heave Humm	ves (B9) ( <b>MLRA 1</b> , (B10) Table (C2) on Aerial Imagery (C on (D2) D3) D5) s (D6) ( <b>LRR A</b> ) nocks (D7)

Project/Site: Pocetrade And	in Sung in sal	City/County: Poin	ell Courty_ Sampling Date: Coldel?
Applicant/Owner: Fish Indelife on	2 Parts	5	State: <u>LT</u> Sampling Point: <u>2TO3</u>
Investigator(s): V. Parateard			
			e, convex, none): <u>Nove</u> Slope (%): <u>3</u>
Subregion (LRR): <u>C-vbcki nta range ff</u>	hest Lat: 40	:16'07.254	U Long: 112°44'39.751 "Datum: 1065 9
Are climatic / hydrologic conditions on the site typical fo			
			e "Normal Circumstances" present? Yes X No
Are Vegetation <u>ND</u> , Soil <u>NO</u> , or Hydrology <u>NO</u>			
SUMMARY OF FINDINGS – Attach site ma	ap showing	sampling point	locations, transects, important features, etc
	No X	In the Comple	
Hydric Soil Present?     Yes       Wetland Hydrology Present?     Yes	No <u>×</u>		ad Area and? Yes NoX
Wetland Hydrology Present?         Yes           Remarks:         Bundary 18	No		
Remains. Bouncary is inclasted	NON TO	posimpric	brac
VEGETATION – Use scientific names of p	lants.	IN MARCEN	The Day Superior (Area)
the second states a second states of the second states of the	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 5×30 ft.)		Species? Status	- Number of Dominant Species
1			That Are OBL, FACW, or FAC: (A)
23.			Total Number of Dominant
3			_ Species Across All Strata: (B)
	0	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: O O (A/B)
Sapling/Shrub Stratum (Plot size: 5×304)			That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet:
1			Total % Cover of:Multiply by:
2			OBL species         x 1 =
3			FACW species x 2 =
4 5.			FAC species x 3 =
U	0	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: <u>S×SA</u> )			UPL species $90 \times 5 = 480$
1. <u>Bromus inemis</u>	- 90-3	1 UPL	Column Totals: <u>95</u> (A) <u>465</u> (B)
2. Solidaço Sp.		<u>N</u> -	Prevalence Index = B/A = <u>9,89</u>
3. Poa prestensis		N FAC	Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
5			2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7		and the statements	<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting</li> </ul>
8			data in Remarks or on a separate sheet)
9			5 - Wetland Non-Vascular Plants <sup>1</sup>
10			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11	00	the design of	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 5× 30 fl)	-48	= Total Cover	
1			Hydrophytic
			Vegetation
2	0	= Total Cover	Present? Yes No <u></u>
0	0.		
2			

Profile Description: (Describe to the dep	oth needed to document the indicator or confirm	in the absence of indicators.)
Depth Matrix	Redox Features	Texture Remarks
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
		sitzelas loan
2-5.5 10-12 3/1 100	and press and the second second	Senes classion
55-16+2:54 4/2 100		loam sance
Start Content		5
and 2 and Crowing morester California of crowing	ne ola setta esta esta esta esta esta esta es	
Type: C=Concentration, D=Depletion, RM	=Reduced Matrix, CS=Covered or Coated Sand G	rains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all	LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	<sup>3</sup> Indicators of hydrochytic vocatation and
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	uniess distances of problematic.
Restrictive Layer (if present):		
Туре:	The share is a second s	Hydric Soil Present? Yes No X
mine of the second seco		
Remarks: 106_001 % IYDROLOGY Wetland Hydrology Indicators:		
Remarks: 106_001 % IYDROLOGY Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Remarks: 106_001 % IYDROLOGY Wetland Hydrology Indicators:	Water-Stained Leaves (B9) (except	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2
Remarks: 106_001 % IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
Remarks: 106_001 % IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10)
Remarks: 106_001% IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Remarks: 106_001%	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	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 (Ci
Remarks: 106_001 %  IYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro	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 (Ci oots (C3) Geomorphic Position (D2)
Remarks: 106_001% Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)	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 (C oots (C3) Shallow Aquitard (D3)
Remarks: 106_001% IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require 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-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C	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 (Cl pots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C1) (C
Remarks: 106_001% Wetland Hydrology Indicators: Primary Indicators (minimum of one require 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-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR A	Secondary Indicators (2 or more required)
Remarks: 106_001% IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require 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-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4)     Other (Explain in Remarks)	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 (Cl pots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C1) (C
Remarks: 106_001% Wetland Hydrology Indicators: Primary Indicators (minimum of one require 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 Imagery (E Sparsely Vegetated Concave Surface Field Observations:	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4)     Other (Explain in Remarks)     (B8)	Secondary Indicators (2 or more required)
Remarks:       106_001%         Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     Stunted or Stressed Plants (D1) (LRR 4     Other (Explain in Remarks)     (B8)	Secondary Indicators (2 or more required)
Remarks:       106_001%         Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 4)     Other (Explain in Remarks)     (B8)     No Depth (inches): No Depth (inches):	Secondary Indicators (2 or more required)
Remarks: 106_001% Wetland Hydrology Indicators: Primary Indicators (minimum of one require 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 Imagery (E Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes X Saturation Present? Yes X Saturation Present? Yes X	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR . Other (Explain in Remarks)     Bepth (inches): No Depth (inches):	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 (C3     Saturation Visible on Aerial Imag
Remarks: 106_001% Wetland Hydrology Indicators: Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     Statted or Stressed Plants (D1) (LR 4     Statted or Stressed Plants	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 (
Remarks:       106_001%         Wetland Hydrology Indicators:         Primary Indicators (minimum of one require         Surface Water (A1)         High Water Table (A2)         X 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 Imagery (E         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C     Stunted or Stressed Plants (D1) (LRR 4     Statted or Stressed Plants (D1) (LR 4     Statted or Stressed Plants	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 (
Remarks:       106_001%         Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 4 Stunted or Stressed Plants (D1) (LR 4 Stunted or Stressed Plants (	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 (
Remarks:       106_001%         Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 4 Stunted or Stressed Plants (D1) (LR 4 Stunted or Stressed Plants (	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 (
Remarks:       106_001%         Wetland Hydrology Indicators:         Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 4 Stunted or Stressed Plants (D1) (LR 4 Stunted or Stressed Plants (	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 (C3     Saturation Visible on Aerial Imag

	DATA FOR	M – Weste	ern Mou	ntains, Valleys, and Coast Region 👘
Project/Site: Bacetrack Pondi	i mbour i vi	City/County:	Pone	11 County Sampling Date: 06/0
Applicant/Owner: Fish, Malalite and				
Investigator(s): K. Kinstead		Section, Tov	vnship, Ra	Inge: SILE, TOLON, ROGIN
Landform (hillslope, terrace, etc.): depression		Local relief	(concave,	convex, none): <u>Cuncove</u> Slope (%): <u>C</u>
Subregion (LRR): E Vack, Mtn Vang for	154 Lat: 41	ê,160	1.358"	Long: 112° 44'39.817" W Datum: W63
Soil Map Unit Name: 632- Bushons	loan C	-470	slop	NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for	or this time of year	ar?Yes 📐	No_	(If no, explain in Remarks.)
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u>	significantly	disturbed?	Are	"Normal Circumstances" present? Yes $\_$ No _
Are Vegetation No., Soil NO, or Hydrology	D naturally pro	blematic?	(If ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	nap showing	sampling	point l	ocations, transects, important features,
Hydrophytic Vegetation Present? Yes X	No	0.00		
Hydric Soil Present? Yes X	No	10 C	e Sampleo	
Wetland Hydrology Present? Yes X	No	withi	n a Wetla	nd? Yes <u>X</u> No
Remarks:	P ARABAM		and some	N man Sector Sector
Constant States & with				
	1	1000		
VEGETATION – Use scientific names of p		Demissed	In dia star	Bernleyer Testurala heat
Tree Stratum (Plot size: 5×30 F)	Absolute <u>% Cover</u>	Dominant Species?		Dominance Test worksheet:
1				That Are OBL, FACW, or FAC: (/
2				Total Number of Dominant
3		ss		Species Across All Strata: (E
4	0			Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 5×30f4)	0	= Total Cov	er	That Are OBL, FACW, or FAC: (A
1			- C	Prevalence Index worksheet: Total % Cover of: Multiply by:
2				OBL species         x 1 =
3				FACW species x 2 =
4				FAC species x 3 =
5	0	= Total Cov		FACU species x 4 =
Herb Stratum (Plot size: 5×54)		- Total Cov	ei	UPL species x 5 =
1. Alopeurus annairadeaus	25	1	FAC	Column Totals: (A)
2. Soli 2000 gp.		<u>N</u>		Prevalence Index = B/A =
3. Juncus arcticus 4. Thomas latifalia	35		ORL	Hydrophytic Vegetation Indicators:
5.			00-	1 - Rapid Test for Hydrophytic Vegetation
6				$3$ - Prevalence Index is $\leq 3.0^{1}$
				4 - Morphological Adaptations <sup>1</sup> (Provide suppor
7				data in Remarks or on a separate sheet)
78				5 - Wetland Non-Vascular Plants <sup>1</sup>
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
9 10				<sup>1</sup> Indicators of hydric soil and watland hydrology mus
9	[cA	- Total Com		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
9 10	69	= Total Cove	er	
9 10 11	69	= Total Cove	er	be present, unless disturbed or problematic.
9	4	= Total Cove	er	be present, unless disturbed or problematic.
9		= Total Cove		be present, unless disturbed or problematic.

			o the dep	in neede				or confirm	the absence of indicators.)
Depth		Matrix				x Feature		1.2	Technic
inches)	Color (m	100 B		Color	r (moist)	%	Type'	_Loc <sup>2</sup>	Texture Remarks
0-35	IONE	2/1	100	~ 10				-	sandselayloun
3.5-10 1	DIR	311	95	SIK	3/4	5	C.	M	Sandy clay loant
2-12	IONR	4/2	0	<u> </u>					sand 30% reapple/groues
X	and a				2				
Type: C=Conc	entration	, D=Depl	etion, RM=	Reduce	d Matrix, C	S=Covere	d or Coate	d Sand Gr	rains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
lydric Soil Ind	icators:	(Applica	able to all	LRRs, u	nless othe	rwise not	ted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A	1)			San	dy Redox (	S5)			2 cm Muck (A10)
Histic Epipe					pped Matrix	5 C C C C C C C C C C C C C C C C C C C		12	Red Parent Material (TF2)
Black Histic					my Mucky			MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen S			(0.4.4)		my Gleyed		2)		Other (Explain in Remarks)
Depleted B			e (A11)		oleted Matri				<sup>3</sup> Indicators of hydrophytic vegetation and
Thick Dark Sandy Muc					lox Dark Su bleted Dark				wetland hydrology must be present,
Sandy Muc Sandy Gley					iox Depres				unless disturbed or problematic.
Restrictive Lay			1.000		- sp. 50	4		The line of the	al national and a second se
Type: Cod	nle	and a state of the	192011			1		Maria 114	- I Kadeley acarate in weath
Depth (inche	1	1.1	insol to tem	track lat					Hydric Soil Present? Yes X No
									Carlo and an and a second
Vetland Hydro	logy Indi		ne required	l; check	all that app	ly)			Secondary Indicators (2 or more required)
Vetland Hydro	logy Indi		ne required	I; check	all that app		ves (B9) (€	xcept	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2
Vetland Hydro Primary Indicato	ology Indi ors (minim ater (A1)	num of o	ne required	l; check	Water-Sta			xcept	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
Vetland Hydro Primary Indicato ✓ Surface Wa ✓ High Water	ors (minim ater (A1) Table (A	num of o	ne required	l; check	Water-Sta	ained Leav 1, 2, 4A,		xcept	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10)
Vetland Hydro Primary Indicato Surface Wa High Water Saturation Water Mark	ors (minim ater (A1) Table (A (A3) (A3)	num of or 2)	ne required	l; check	Water-Sta MLRA Salt Crust Aquatic Ir	ained Leav <b>1, 2, 4A,</b> t (B11) nvertebrate	and 4B) es (B13)	xcept	<ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> </ul>
Vetland Hydro Primary Indicato Surface Wa High Water Saturation ( Water Mark Sediment D	ors (minim ater (A1) Table (A (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A	num of or 2)	ne required	l; check	Water-Sta MLRA Salt Crust Aquatic In Hydrogen	ained Leav <b>1, 2, 4A,</b> t (B11) wertebrate Sulfide O	and 4B) es (B13) odor (C1)		Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)
Vetland Hydro Primary Indicato Surface Wa High Water Saturation ( Water Mark Sediment D Drift Depos	ors (minim ater (A1) Table (A (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A	num of o 2) B2)	ne required	l; check	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized	ained Leav <b>1, 2, 4A,</b> t (B11) nvertebrate Sulfide O Rhizosphe	and 4B) es (B13) odor (C1) eres along	Living Roo	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     X Geomorphic Position (D2)
Vetland Hydro Primary Indicato Surface Wa High Water Saturation ( Water Mark Sediment D Drift Depos Algal Mat o	ors (minim ater (A1) Table (A (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A	num of o 2) B2)	ne required	l; check	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence	ained Leav <b>1, 2, 4A,</b> t (B11) avertebrate Sulfide O Rhizosphe of Reduce	and 4B) es (B13) odor (C1) eres along ed Iron (C-	Living Roo 4)	<ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C3)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> </ul>
Wetland Hydro           Primary Indicato           X           Surface Wa           High Water           Saturation (           Water Mark           Sediment D           Drift Depos           Algal Mat o           Iron Deposition	ology Indi ors (minim ater (A1) Table (A (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A	num of o 2) B2) 34)	ne required	l; check	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Ird	ained Leav <b>1, 2, 4A,</b> t (B11) wertebrate Sulfide O Rhizosphe of Reduce on Reduct	and 4B) es (B13) odor (C1) eres along ed Iron (C- ion in Tille	Living Roo 4) d Soils (C6	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Season Constitution (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Vetland Hydro Primary Indicato Surface Wa High Water Saturation ( Water Mark Sediment D Drift Depos Algal Mat o Iron Depos Surface So Inundation	ater (A1) Table (A (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A	num of or 2) B2) 34) (B6) n Aerial II	magery (B	n)	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Ird	ained Leav 1, 2, 4A, t (B11) wertebrate Sulfide O Rhizosphe of Reduct r Stressed	and 4B) es (B13) odor (C1) eres along ed Iron (C- ion in Tille d Plants (D	Living Roo 4)	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Season Constitution (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Vetland Hydro <sup>*</sup> rimary Indicato <sup>×</sup> Surface Wa <sup>×</sup> High Water <sup>×</sup> Saturation ( <sup>*</sup> Water Mark Sediment D Drift Depos <sup>*</sup> Algal Mat o <sup>*</sup> Iron Depos <sup>*</sup> Surface So <sup>*</sup> Inundation	ater (A1) Table (A (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A	num of or 2) B2) 34) (B6) n Aerial II	magery (B	n)	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irr Stunted o	ained Leav 1, 2, 4A, t (B11) wertebrate Sulfide O Rhizosphe of Reduct r Stressed	and 4B) es (B13) odor (C1) eres along ed Iron (C- ion in Tille d Plants (D	Living Roo 4) d Soils (C6	<ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C4)</li> <li>Staturation Visible on Aerial Imagery (C4)</li> <li>Staturation Visible on Aerial Imagery (C4)</li> <li>Saturation Visible on Aerial Imagery (C4)</li> <li>Staturation Visible on Aerial Imagery (C4)</li> <li>Saturation Visible o</li></ul>
Vetland Hydro rimary Indicate Surface Wa High Water Saturation of Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Surface So Inundation Sparsely We Field Observat	logy Indi ors (minim ater (A1) Table (A (A3) rs (B1) Deposits (i its (B3) r Crust (B its (B5) il Cracks Visible or egetated <b>ions:</b>	num of o 2) B2) 34) (B6) n Aerial II Concave	magery (B: e Surface (I	7)	Water-Sta MLRA Salt Crusi Aquatic Ir Hydrogen Oxidized Presence Recent Ird Stunted o Other (Ex	ained Leav <b>1, 2, 4A,</b> (B11) avertebrate Sulfide O Rhizosphe of Reduce on Reduct r Stressec plain in Re	and 4B) es (B13) odor (C1) eres along ed Iron (C- ion in Tille d Plants (D	Living Roo 4) d Soils (C6	<ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C4)</li> <li>Staturation Visible on Aerial Imagery (C4)</li> <li>Staturation Visible on Aerial Imagery (C4)</li> <li>Saturation Visible on Aerial Imagery (C4)</li> <li>Staturation Visible on Aerial Imagery (C4)</li> <li>Saturation Visible o</li></ul>
Vetland Hydro rrimary Indicate Surface Wa High Water Saturation of Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Surface So Inundation Sparsely We Field Observat Surface Water F	logy Indi ors (minim ater (A1) Table (A (A3) ts (B1) Deposits (i its (B3) r Crust (B its (B5) il Cracks Visible or egetated ions: Present?	num of or 2) B2) 34) (B6) n Aerial In Concave	magery (Bi Surface (I es <u>X</u>	7)	Water-Sta MLRA Salt Crusi Aquatic Ir Hydrogen Oxidized Presence Recent Irr Stunted o Other (Ex	ained Leav <b>1, 2, 4A,</b> <b>t</b> (B11) wertebrate Sulfide O Rhizosphe of Reduct on Reduct r Stressec plain in Re- mches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roo 4) d Soils (C6	<ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C4)</li> <li>Staturation Visible on Aerial Imagery (C4)</li> <li>Staturation Visible on Aerial Imagery (C4)</li> <li>Saturation Visible on Aerial Imagery (C4)</li> <li>Staturation Visible on Aerial Imagery (C4)</li> <li>Saturation Visible o</li></ul>
Vetland Hydro rrimary Indicate Surface Wa High Water Saturation of Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Surface So Inundation Sparsely We Field Observat Surface Water Five Vater Table Pro-	logy Indi ors (minim tater (A1) Table (A (A3) ts (B1) beposits (i its (B3) r Crust (B its (B5) il Cracks Visible or egetated ions: Present?	num of or 2) B2) 34) (B6) n Aerial In Concave	magery (B Surface (I es <u>X</u> es <u>X</u>	7) 38) No	Water-State MLRA Salt Crust Aquatic In Hydrogen Oxidized Presence Recent In Stunted o Other (Ex	ained Leav 1, 2, 4A, t (B11) avertebrate Sulfide O Rhizosphe of Reduct on Reduct on Reduct r Stressec plain in Re- nches): nches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roo 4) d Solls (C6 1) (LRR A)	<ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C3)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> <li>Raised Ant Mounds (D6) (LRR A)</li> <li>Frost-Heave Hummocks (D7)</li> </ul>
Vetland Hydro Primary Indicato Surface Wa High Water Saturation ( Water Mark Sediment D Drift Depos Algal Mat o Iron Depos Surface So Surface So Surface Water T Surface Water T Surface Water T Surface Protocol Saturation Pres includes capilla	logy Indi ors (minim ater (A1) Table (A (A3) as (B1) Deposits (I its (B3) r Crust (B its (B5) il Cracks Visible or egetated ions: Present? essent? ent? ary fringe)	num of or 2) B2) 34) (B6) n Aerial II Concave Yi Yi Yi Yi	magery (Bi e Surface (I es X es X es X	7) 388) No No	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irr Stunted o Other (Ex	ained Leav 1, 2, 4A, 1 (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec plain in Re- nches): hches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roo 4) d Solls (C6 1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Saturation Visible on Aerial Imagery (C3)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Vetland Hydro Primary Indicato Surface Wa High Water Saturation ( Water Mark Sediment D Drift Depos Algal Mat o Iron Depos Surface So Inundation Sparsely Vi Sparsely Vi Sitface Water T Surface Water T Surface Water T Surface Protocol Saturation Pressincludes capilla	logy Indi ors (minim ater (A1) Table (A (A3) as (B1) Deposits (I its (B3) r Crust (B its (B5) il Cracks Visible or egetated ions: Present? essent? ent? ary fringe)	num of or 2) B2) 34) (B6) n Aerial II Concave Yi Yi Yi Yi	magery (Bi e Surface (I es X es X es X	7) 388) No No	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irr Stunted o Other (Ex	ained Leav 1, 2, 4A, 1 (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec plain in Re- nches): hches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roo 4) d Solls (C6 1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Saturation Visible on Aerial Imagery (C3)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Vetland Hydro rrimary Indicato Surface Wa High Water Saturation ( Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Surface So Inundation Sparsely Wa Surface Water Table Pro Sutrace Water Table Pro Saturation Pres includes capilla Describe Recor	logy Indi ors (minim ater (A1) Table (A (A3) as (B1) Deposits (I its (B3) r Crust (B its (B5) il Cracks Visible or egetated ions: Present? essent? ent? ary fringe)	num of or 2) B2) 34) (B6) n Aerial II Concave Yi Yi Yi Yi	magery (Bi e Surface (I es X es X es X	7) 388) No No	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irr Stunted o Other (Ex	ained Leav 1, 2, 4A, 1 (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec plain in Re- nches): hches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roo 4) d Solls (C6 1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Saturation Visible on Aerial Imagery (C3)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Vetland Hydro Primary Indicato Surface Wa High Water Saturation i Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Surface So Surface So Surface Vater Table Pro Saturation Pres includes capilla Describe Recor	logy Indi ors (minim ater (A1) Table (A (A3) as (B1) Deposits (I its (B3) r Crust (B its (B5) il Cracks Visible or egetated ions: Present? essent? ent? ary fringe)	num of or 2) B2) 34) (B6) n Aerial II Concave Yi Yi Yi Yi	magery (Bi e Surface (I es X es X es X	7) 388) No No	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irr Stunted o Other (Ex	ained Leav 1, 2, 4A, 1 (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec plain in Re- nches): hches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roo 4) d Solls (C6 1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Saturation Visible on Aerial Imagery (C3)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Wetland Hydro Primary Indicato Surface Wa High Water Saturation i Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Surface So Inundation Sparsely W Field Observat Surface Water Table Pro Saturation Pres includes capilla Describe Recor	logy Indi ors (minim ater (A1) Table (A (A3) as (B1) Deposits (I its (B3) r Crust (B its (B5) il Cracks Visible or egetated ions: Present? essent? ent? ary fringe)	num of or 2) B2) 34) (B6) n Aerial II Concave Yi Yi Yi Yi	magery (Bi e Surface (I es X es X es X	7) 388) No No	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irr Stunted o Other (Ex	ained Leav 1, 2, 4A, 1 (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec plain in Re- nches): hches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roo 4) d Solls (C6 1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Saturation Visible on Aerial Imagery (C3)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
High Water Saturation ( Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Surface So Inundation	logy Indi ors (minim ater (A1) Table (A (A3) as (B1) Deposits (I its (B3) r Crust (B its (B5) il Cracks Visible or egetated ions: Present? essent? ent? ary fringe)	num of or 2) B2) 34) (B6) n Aerial II Concave Yi Yi Yi Yi	magery (Bi e Surface (I es X es X es X	7) 388) No No	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irr Stunted o Other (Ex	ained Leav 1, 2, 4A, 1 (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec plain in Re- nches): hches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roo 4) d Solls (C6 1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Saturation Visible on Aerial Imagery (C3)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Wetland Hydro Primary Indicato Surface Wa High Water Saturation i Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Surface So Inundation Sparsely W Field Observat Surface Water Table Pro Saturation Pres includes capilla Describe Recor	logy Indi ors (minim ater (A1) Table (A (A3) as (B1) Deposits (I its (B3) r Crust (B its (B5) il Cracks Visible or egetated ions: Present? essent? ent? ary fringe)	num of or 2) B2) 34) (B6) n Aerial II Concave Yi Yi Yi Yi	magery (Bi e Surface (I es X es X es X	7) 388) No No	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irr Stunted o Other (Ex	ained Leav 1, 2, 4A, 1 (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec plain in Re- nches): hches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roo 4) d Solls (C6 1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Saturation Visible on Aerial Imagery (C3)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Wetland Hydro Primary Indicato Surface Wa High Water Saturation i Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Surface So Inundation Sparsely W Field Observat Surface Water Table Pro Saturation Pres includes capilla Describe Recor	logy Indi ors (minim ater (A1) Table (A (A3) as (B1) Deposits (I its (B3) r Crust (B its (B5) il Cracks Visible or egetated ions: Present? essent? ent? ary fringe)	num of or 2) B2) 34) (B6) n Aerial II Concave Yi Yi Yi Yi	magery (Bi e Surface (I es X es X es X	7) 388) No No	Water-Sta MLRA Salt Crust Aquatic Ir Hydrogen Oxidized Presence Recent Irr Stunted o Other (Ex	ained Leav 1, 2, 4A, 1 (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressec plain in Re- nches): hches):	and 4B) es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roo 4) d Solls (C6 1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Saturation Visible on Aerial Imagery (C3)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)

Project/Site: Pacetrack Por	nd on	ity/County: Pone	11 County Sampling Date: 02/01
			State: Sampling Point: RTOS
			ange: SILE, TOLON, RONW
andform (hillslope, terrace, etc.): Sone			convex, none): Slope (%):
Subregion (LRR): Erocke Mtn	ance forest Lat: 461	W'TOT'N	_ Long: 112044'37.357" N Datum: WCS.8
Soil Map Unit Name: 562- Carte	nloam 0-4	120 Slopes	S NWI classification:
Are climatic / hydrologic conditions on the site			
Are Vegetation No , Soil Noo , or Hydro	ology 100 significantly di	sturbed? Are	"Normal Circumstances" present? Yes 📈 No
Are Vegetation <u>No</u> , Soil <u>NO</u> , or Hydro			
			locations, transects, important features, etc
	A DESCRIPTION OF A DESC		iocations, transects, important reatures, etc
	es No _X es No _X	Is the Sampled	d Area
Wetland Hydrology Present? Ye	es No	within a Wetlan	nd? Yes No X
Remarks: pounder aduced	tur 13 change	- and d	ense green regetation with max
thin gravely gupe	- Boundary is	han	2 - 2 - action house with
0		-	Contrast Dates Date Budger (M11)
VEGETATION – Use scientific nan			(Skin) (Skin) (Skin) (Skin)
Tree Stratum (Plot size: <u>Sx 30</u> )	Absolute [ % Cover 5	Dominant Indicator Species? Status	Dominance Test worksheet:
1			Number of Dominant Species That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant Species Across All Strata:(B)
4			Percent of Dominant Species
Conling/Shruh Stratum /Distaire:	<u> </u>	Total Cover	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: <u>Sx</u> 1.			Prevalence Index worksheet:
2			Total % Cover of:Multiply by:
3			OBL species x 1 =
4		7	FACW species x 2 =
5			FAC species $5$ $x 3 =$ $15$ FACU species $5$ $x 4 =$ $20$
Herb Stratum (Plot size: <u>S×S</u> )	0 =	Total Cover	$\begin{array}{c} \text{PACU species} \\ \text{UPL species} \\ \hline 28 \\ \text{x5} = \\ \hline 140 \\ \hline \end{array}$
1. Coknown Rob - not 1	Firman IS	1 -	Column Totals: 3% (A) 17S (B)
2. Descurcing sonling		N UPL	Children and a strength of the
3. Aenophian cristatum		NUR	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
4. pour praternests	5	N FAC	1 - Rapid Test for Hydrophytic Vegetation
5. Bromus tectorum	15	Y UPL	2 - Dominance Test is >50%
6. Resoprin Smithi	5	N FACU	3 - Prevalence Index is ≤3.0 <sup>1</sup>
7		the set in contrast,	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8	the second s		data in Remarks or on a separate sheet)
9			5 - Wetland Non-Vascular Plants <sup>1</sup>
10 11.			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must
11.	48 =	Total Cover	be present, unless disturbed or problematic.
			and the second second second second second
Woody Vine Stratum (Plot size: 5x 30		werd vote of the set	Hydrophytic
Woody Vine Stratum (Plot size: 5× 30 1.			Vegetation Present? Yes No X
the second se			res No 1
1	=1	Total Cover	
1	-	Total Cover	

Tome Description. (Doborna	e to the de	pui noodoo		or confirm the absence of indicators.)
Depth Matrix	%	Calari	Redox Features (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
(inches) Color (moist)		Color (	and the second	
0-1 1012 de	100			Sandy loan
1-5 10-12 314	1 100			loan sant some robble
5-11 7.54 51	2 30			- loans 70% coldes
energy takens		e curiq Terri 2 lum Terri 2 lum	and Second Service	
<sup>1</sup> Type: C=Concentration, D=De		/=Reduced	Matrix. CS=Covered or Coate	d Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Appl	icable to a	II LRRs, un	less otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)		Sand	ly Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)		Strip	ped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3) Hydrogen Sulfide (A4)		Loan	ny Mucky Mineral (F1) ( <b>except</b> ny Gleyed Matrix (F2)	MLRA 1) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Depleted Below Dark Surfa	ace (A11)		eted Matrix (F3)	31. directory of the development discovered
Thick Dark Surface (A12)			bx Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mineral (S1)		the second s	eted Dark Surface (F7)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):		Redo	bx Depressions (F8)	
Type: _ Cobble_				
				Hydric Soil Present? Yes No
mus' <u>0.01</u> dante	2			
Remarks: 100 - 002 HYDROLOGY Wetland Hydrology Indicator	s:			COLUZ MUMP - ST AND
Remarks: 100 - 002 IYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum o	s:			Secondary Indicators (2 or more required
Remarks: 100 - 002 IYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1)	s:		Water-Stained Leaves (B9) (e	Secondary Indicators (2 or more required           xcept
Remarks: 100 - 002 HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum or Surface Water (A1) High Water Table (A2)	s:		Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required           xcept
Remarks: 100 _ 002 HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum or 	s:		Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)       Drainage Patterns (B10)
Remarks: 100 _ 002 HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum or 	s:		Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required           xcept
Remarks: 100 _ 002 HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	s:		Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)       Drainage Patterns (B10)         Dry-Season Water Table (C2)       Saturation Visible on Aerial Imagery (Living Roots (C3)
Remarks: 100 _ 002 HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum or 	s:		Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)       Drainage Patterns (B10)         Dry-Season Water Table (C2)       Saturation Visible on Aerial Imagery (Living Roots (C3)         4)       Geomorphic Position (D2)         4)       Shallow Aquitard (D3)
Remarks: 100 - 002 <b>iYDROLOGY</b> Wetland Hydrology Indicator Primary Indicators (minimum of 	s:		Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)       Drainage Patterns (B10)         Dry-Season Water Table (C2)       Saturation Visible on Aerial Imagery (Living Roots (C3))         Geomorphic Position (D2)       Shallow Aquitard (D3)         d Soils (C6)       FAC-Neutral Test (D5)
Remarks: 100 - 002 HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	s:		Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)       Drainage Patterns (B10)
Remarks: 100 - 002 HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum of 	s: f one requir	(B7)	Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)       Drainage Patterns (B10)         Dry-Season Water Table (C2)       Saturation Visible on Aerial Imagery (Living Roots (C3))         Geomorphic Position (D2)       Shallow Aquitard (D3)         d Soils (C6)       FAC-Neutral Test (D5)
Remarks: 100 _ 0027 HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum of 	s: f one requir	(B7)	Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)       Drainage Patterns (B10)
Remarks: 100 _ 002 HYDROLOGY Wetland Hydrology Indicator Primary Indicators (minimum of 	s: fone requir al Imagery ( ave Surface	(B7) (B8)	Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)       Drainage Patterns (B10)
Remarks: 100 - 002 Wetland Hydrology Indicator Primary Indicators (minimum or 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 Aeria Sparsely Vegetated Conca Field Observations:	s: fone requir fone requir fone require al Imagery ( ave Surface Yes Yes	(B7) (B8) (B8) No ×	Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D Other (Explain in Remarks)  Depth (inches):	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)       Drainage Patterns (B10)
Remarks: 100 - 002 Wetland Hydrology Indicator Primary Indicators (minimum or 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 Aeria Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? Saturation Present? Saturation Present?	s: f one requir al Imagery ( ave Surface Yes Yes Yes	(B7) (B8) No × No ×	Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D Other (Explain in Remarks)  Depth (inches): Depth (inches):	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)
Remarks: 100 - 0002 Wetland Hydrology Indicator Primary Indicators (minimum of 	s: f one requir al Imagery ( ave Surface Yes Yes Yes	(B7) (B8) No × No ×	Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D Other (Explain in Remarks)  Depth (inches): Depth (inches):	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)
Remarks: 100 _ 0027 Wetland Hydrology Indicator Primary Indicators (minimum of 	s: f one requir al Imagery ( ave Surface Yes Yes Yes	(B7) (B8) No × No ×	Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D Other (Explain in Remarks)  Depth (inches): Depth (inches):	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)
Remarks: 100 - 0000 Wetland Hydrology Indicator Primary Indicators (minimum of 	s: f one requir al Imagery ( ave Surface Yes Yes Yes	(B7) (B8) No × No ×	Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Stunted or Stressed Plants (D Other (Explain in Remarks)  Depth (inches): Depth (inches):	Secondary Indicators (2 or more required         xcept       Water-Stained Leaves (B9) (MLRA 1         4A, and 4B)

# -112.743701

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

nvestigator(s): V. Parnsteard		Section, To	wnship, Ra	Inge: SILE, TOLAN, ROAW
andform (hillslope, terrace, etc.): Sloge		Local relief	(concave,	convex, none): Slope (%):
ubregion (LRR): E-Pock Mtn Pana I five	St Lat: 40	°16'11."	134"N	Long: 112 44 37.325"W Datum: WCAS
oil Map Unit Name: 562 - Carten Loar			slopes	NWI classification:
re climatic / hydrologic conditions on the site typical for t	his time of ve	1117	1	
re Vegetation <u>No</u> , Soil <u>Noo</u> , or Hydrology <u>Noo</u>				
re Vegetation <u>No.</u> , Soil <u>No.</u> , or Hydrology <u>No.</u>				eeded, explain any answers in Remarks.)
	p showing	samplin	g point l	ocations, transects, important features, et
Hydrophytic Vegetation Present? Yes X	No	Is th	e Sampled	Area
Hydric Soil Present? Yes X Wetland Hydrology Present? Yes X	No		in a Wetlar	N N
Remarks:	NU		Second Second	
the same a structure list of the				
EGETATION – Use scientific names of pla	ints.	(mag)	codese has	There is a state of the state o
= 2= 0	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 5×30A)	% Cover	Species?	Status	Number of Dominant Species
				That Are OBL, FACW, or FAC: (A)
				Total Number of Dominant
				Species Across All Strata: (B)
	0	= Total Co		Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: <u>5×304</u> )		- 10tai 00	vei	That Are OBL, FACW, or FAC: (A/E
Salix bebbiens	_5	N	FACW	Prevalence Index worksheet:
Salix bouthil	2	N	FACIN	Total % Cover of: Multiply by:
Salix drummondiana	_10_	Y	FACW	OBL species         x 1 =           FACW species         x 2 =
Betula Occidentallis		<u> </u>	FACIN	FAC species x 2 =
	20			FACU species x 4 =
Herb Stratum (Plot size: 5×5 ft)	_36	= Total Cov	ver	UPL species x 5 =
Bromus carinatus	30	Y	UPL	Column Totals: (A) (B)
Juneus proticus	25	Y	FACW	Prevalence Index = B/A =
Abtentilla anserina	3	N	OBL	Hydrophytic Vegetation Indicators:
Sdidago 30.	2	N	-	1 - Rapid Test for Hydrophytic Vegetation
the prostensis	15	N	FAC	X 2 - Dominance Test is >50%
Sisterinchium montanum	75	N	FAC	3 - Prevalence Index is ≤3.0 <sup>1</sup>
		<u></u>		4 - Morphological Adaptations <sup>1</sup> (Provide supportin
				data in Remarks or on a separate sheet)
				5 - Wetland Non-Vascular Plants <sup>1</sup>
01				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must
1		- Total Cav		be present, unless disturbed or problematic.
loody Vine Stratum (Plot size: 5×30A)	_/	= Total Cov		Santa Santa Santa
and and a second se			N. Current	Hydrophytic
				Vegetation
6 Bare Ground in Herb Stratum	0	= Total Cove	er	Present? Yes X No
Remarks: litter in herb plet	2576			
line in vers plat	016			

Sampling Point:	PT	OL
Sampling Forn.	- V	

	Color (moist) 104R2/2 104R4/2 104R4/2			Feature		12	Taxture	Remarks
2-7	104R4/2		Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture Sandy	Remarks
		(00)					loan	
7-15+	LOVEGI	95	7.54R 4/6	5	C	M	Loaving	and the second second second
	101601	30	Stigned of 1	1101			Sand )	70% cobbles
W 9	Contraction of the second	Marcia DV	M		<u>SE</u>	2		
In providen			Anna Anna Anna Anna Anna Anna Anna Anna					
Type: C=Cond	centration, D=Dep	pletion, RM	I=Reduced Matrix, CS	=Covered	d or Coate	ed Sand G		cation: PL=Pore Lining, M=Matrix.
Hydric Soil Ind	licators: (Applic	cable to al	LRRs, unless other		ed.)			rs for Problematic Hydric Soils':
Histosol (A	.1)		X Sandy Redox (S					n Muck (A10)
Histic Epipe	edon (A2)		Stripped Matrix	Contraction of the second		tanto area area	19100	Parent Material (TF2)
Black Histi	c (A3)		Loamy Mucky M			t MLRA 1)		Shallow Dark Surface (TF12)
Hydrogen S	Sulfide (A4)		Loamy Gleyed I	Matrix (F2	2)		Othe	er (Explain in Remarks)
Depleted B	Below Dark Surfac	ce (A11)	Depleted Matrix	(F3)				
Thick Dark	Surface (A12)		Redox Dark Su	face (F6)				ors of hydrophytic vegetation and
and the second se	cky Mineral (S1)		Depleted Dark S	Surface (F	7)			nd hydrology must be present,
	yed Matrix (S4)		Redox Depress	ions (F8)		1000	unles	s disturbed or problematic.
	yer (if present):		Sel and here					
Type:C	obble	ALL						
Depth (inche	and the second s	15"					Hydric Soil	Present? Yes K_ No
	ology Indicators		ed; check all that appl		<u></u>	21		ndary Indicators (2 or more required)
Surface W	ater (A1)		Water-Sta			except	v	Vater-Stained Leaves (B9) (MLRA 1, 2
High Wate	r Table (A2)		MLRA	1, 2, 4A,	and 4B)			4A, and 4B)
X Saturation	(A3)		Salt Crust	(B11)				orainage Patterns (B10)
Water Mar	ks (B1)		Aquatic In	vertebrate	es (B13)			Pry-Season Water Table (C2)
Sediment	Deposits (B2)		Hydrogen	Sulfide O	dor (C1)		S	Saturation Visible on Aerial Imagery (C
Drift Depos	and the second se		Oxidized F			Living Ro	ots (C3) X G	Geomorphic Position (D2)
	or Crust (B4)		Presence					shallow Aquitard (D3)
Iron Depos			Recent Iro					AC-Neutral Test (D5)
	oil Cracks (B6)		Stunted or					aised Ant Mounds (D6) (LRR A)
	Visible on Aerial	Imagen/				., (2	/	rost-Heave Hummocks (D7)
					and No)			
Sparsely V	/egetated Concav	ve Surrace	(60)			-		
Field Oberer		100		aboa):				
Field Observa			No <u>×</u> Depth (in		13			
Surface Water	recent?	Yes <u></u>			0	-		
Surface Water		Yes X	No Depth (in	ches):	0	_ Wet	land Hydrolog	y Present? Yes X No
Surface Water Water Table Pr Saturation Pres	sent?			photos p	coulous in	an optiona)		
Surface Water Water Table Pr Saturation Pres	sent? lary fringe)	n gauge, n	nonitoring well, aerial	prioros, p	evious in:	spections)	, if available:	
Surface Water Water Table Pr Saturation Pre: (includes capill Describe Reco Remarks:	sent? lary fringe) rded Data (strear		noiso					
Surface Water Water Table Pr Saturation Pre: (includes capill Describe Reco Remarks:	sent? lary fringe)		nonitoring well, aerial					in Gand In Held Gandan - E
Surface Water Water Table Pr Saturation Pre: (includes capill Describe Reco Remarks:	sent? lary fringe) rded Data (strear		noiso					nin in the second se

Project/Site: Pacetvack	And	In the second	City/County:	sampling Date: Clotolo
Applicant/Owner: fish Wild	life and	- Parks		State: HT Sampling Point: PT OT
				hip, Range: Sile, TOLON, ROGW
Landform (hillslope, terrace, etc.): h	11 slope		Local relief (cor	ncave, convex, none): none Slope (%):
Subregion (LRR): E - Pocke Mty	Panae & fo	Gest Lat: 44	°16'20.73	"N Long: 112944'39.224"N Datum: WGS8
Soil Map Unit Name: Se7 - Co	orten 1	oan U	470 5106	NWI classification: none
Are climatic / hydrologic conditions on t	he site typical f	or this time of yea	ar? Yes 🗙	No (If no, explain in Remarks.)
				Are "Normal Circumstances" present? Yes X No
Are Vegetation NO , Soil NO , or	Hydrology N	o naturally pro	blematic?	(If needed, explain any answers in Remarks.)
				oint locations, transects, important features, et
			samping p	onit locations, transects, important leatures, et
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes Yes		Is the Sa	Impled Area
Wetland Hydrology Present?	Yes		within a	Wetland? Yes No X
Remarks:				Solution in the second s
				- Lower of the lot of the lot of the second se
VEGETATION – Use scientific	names of	plants.		
Tree Stratum (Plot size: 5×30	a sector a	Absolute	Dominant Ind	icator Dominance Test worksheet:
1				Number of Dominant Species         O         (A)
23				Total Number of Dominant Species Across All Strata: (B)
4				Percent of Dominant Species
One line (Oherth Otenham (Distriction)	C		= Total Cover	That Are OBL, FACW, or FAC: (A/B
Sapling/Shrub Stratum (Plot size:1.				Prevalence Index worksheet:
2				Total % Cover of:Multiply by:
3.				OBL species x 1 =
4				FACW species         x 2 =           FAC species         x 3 =
5				FACU species $32 \times 4 = 178$
Herb Stratum (Plot size: 5x 5		0	= Total Cover	UPL species $15 \times 5 = 75$
1. Descuroline Soloni		15	V U	Q Qaluma Tatala 47 (A) 702 (D)
2. Sisymbrum alti		15		Prevalence Index = B/A =4/32
3. Assophism smith		15	YE	Hydrophytic Vegetation Indicators:
4. Lepidium perfolia		2	NFA	U 1 - Rapid Test for Hydrophytic Vegetation
5	SAR.			2 - Dominance Test is >50%
6	100	A PRIMALIN	Million and a second	3 - Prevalence Index is ≤3.0 <sup>1</sup>
7	Toll.		ann da pa	4 - Morphological Adaptations <sup>1</sup> (Provide supportin
8				data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup>
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11.			in the second	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Protection of Strength	.25	47	= Total Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:	<u>(x 50</u> )			
1				Hydrophytic Vegetation
2		0	= Total Cover	Present? Yes No
	23			
% Bare Ground in Herb Stratum	) and			

Profile Desc	ription: (Describe 1	to the depth r	needed to document th	e indicator d	Commin	the absence	e or mulcato	rs.)		
Depth	Matrix		Redox Featu		. 2	-		Deserte		
(inches)	Color (moist)	-	Color (moist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks		
56.5	104R 2/1	100	the second of			Sandy	oam	1.2.1	1	
05-10	10412 413	100	or offering three participants	1001		Demi	Sand		11	_
0-17+	2.31 512	95				LOOML SA	ne	Mr. Tak	ARTIN'S	C. T
0.11	5-12 519	6	No. No.	10		.0.	tillo	@ 14,	nches	10
	JIE JIE		100 TO 100		0000	12 10 20	Iguing	en	1040	
	X and Theorem		D Increment' and					1 109.1		
	Laturn I in pre-					Cial vietn	14 <u>6149</u> 24	ine in	i north	
			duced Matrix, CS=Cove		d Sand Gra		ocation: PL=I			
Hydric Soil I	ndicators: (Applica	able to all LR	Rs, unless otherwise n	oted.)			ors for Prob		Iric Soils	-
Histosol		1. MAY	Sandy Redox (S5)				m Muck (A10			
	ipedon (A2)		Stripped Matrix (S6)				d Parent Mat		(7540)	
Black Hi		-	Loamy Mucky Mineral		MLRA 1)		ry Shallow Da		(1+12)	
	n Sulfide (A4)		Loamy Gleyed Matrix (	(F2)		_ 00	ner (Explain i	n Remarks)		
	Below Dark Surface	(ATT)	Depleted Matrix (F3)	6)		<sup>3</sup> Indicat	ors of hydrop	hytic vegets	tion and	
	rk Surface (A12) lucky Mineral (S1)		Redox Dark Surface (F Depleted Dark Surface				and hydrolog	and the second second second		
	leyed Matrix (S4)	town sect a top	Redox Depressions (F				ss disturbed			
	ayer (if present):	THE OWNER								F
Type:										
	-	and the second second						Yes	No	X
						Hvdric Soi	I Present?	165		
Remarks: 10	ches):			Tane T-4		Hydric Sol	Il Present?			- <u>6</u>
Remarks: 10 YDROLO	8-200-00			Dave T. 4	2	Hydric Sol	Il Present?			
Remarks: 10 YDROLO Wetland Hyd	00-0028 GY	ne required; c	- heck all that apply)	lanes a			ondary Indica		pre require	ed)
Remarks: 10 IYDROLO Wetland Hyd Primary Indic	GY drology Indicators:	ne required; c	heck all that apply)	paves (B9) (ex	ccept	<u>Secc</u>		tors (2 or me		
Remarks: 10 IYDROLO Wetland Hyd Primary Indio Surface	GY drology Indicators: ators (minimum of o	ne required; c			ccept	<u>Secc</u>	ondary Indica	tors (2 or mo		
Remarks: 10 IYDROLO Wetland Hyd Primary Indio Surface	GY drology Indicators: eators (minimum of o Water (A1) ter Table (A2)	ne required; c	Water-Stained Le		ccept	<u>Secc</u>	ondary Indica Water-Staine	tors (2 or mo d Leaves (B B)		
Remarks: 10 YDROLO Wetland Hyd Primary Indic Surface High Wa Saturatio	GY drology Indicators: eators (minimum of o Water (A1) ter Table (A2)	ne required; c	Water-Stained Le	A, and 4B)	ccept	<u>Secc</u>	ondary Indica Water-Staine 4A, and 4	tors (2 or mo d Leaves (B B) tterns (B10)	9) ( <b>MLRA</b>	
Remarks: 10 IYDROLO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M	GY drology Indicators: eators (minimum of o Water (A1) ter Table (A2) on (A3)	ne required; c	Water-Stained Le MLRA 1, 2, 4/ Salt Crust (B11)	A, and 4B) ates (B13)	ccept	<u>Secc</u>	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat	tors (2 or mo d Leaves (B B) tterns (B10) Water Table	9) ( <b>MLRA</b> (C2)	1, 2,
Remarks: 10 IYDROLO Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer	GY drology Indicators: eators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1)	ne required; c	Water-Stained Le MLRA 1, 2, 4/ Salt Crust (B11) Aquatic Invertebr	<b>A, and 4B)</b> ates (B13) Odor (C1)		<u>Secc</u>	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season N	ttors (2 or mo d Leaves (B B) tterns (B10) Water Table sible on Aeri	9) ( <b>MLRA</b> (C2) al Imager	1, 2,
Remarks: 10 Wetland Hyd Primary Indic Saturatic Water M Saturatic Uvater M Sedimer Drift Dep	GY drology Indicators: eators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2)	ne required; c	Water-Stained Le MLRA 1, 2, 4/ Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide	A, and 4B) ates (B13) Odor (C1) oheres along I	Living Root	Secc \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vi	ttors (2 or mo d Leaves (B B) tterns (B10) Water Table sible on Aeri Position (D2	9) ( <b>MLRA</b> (C2) al Imager	1, 2,
Remarks: 10 Wetland Hyp Primary Indic Burface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	GY trology Indicators: sators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) posits (B3)	ne required; c	Water-Stained Le MLRA 1, 2, 4/ Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp	A, and 4B) ates (B13) Odor (C1) heres along I uced Iron (C4	_iving Roo	<u>Secc</u>    ts (C3)	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season N Saturation Vi Geomorphic	tors (2 or mo d Leaves (B B) tterns (B10) Water Table sible on Aeri Position (D2 tard (D3)	9) ( <b>MLRA</b> (C2) al Imager	1, 2,
Remarks: 10 Wetland Hyu Primary Indio Primary Indio Water Ma Sedimer Drift Dep Algal Ma Iron Dep	GY trology Indicators: eators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) tt or Crust (B4)	ne required; c	Water-Stained Le MLRA 1, 2, 4/ Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu	A, and 4B) ates (B13) Odor (C1) heres along I uced Iron (C4 uction in Tilleo	Living Roof ) I Soils (C6	Secc  	water-Staine 4A, and 4 Drainage Pat Dry-Season Vi Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	tors (2 or mo d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6)	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
Remarks: 10 Wetland Hyu Primary India Surface High Wa Saturatio Saturatio Sedimer Drift Dep Algal Ma Iron Dep Surface	GY trology Indicators: tators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) th Deposits (B2) to or Crust (B4) osits (B5)	and a second sec	Water-Stained Le MLRA 1, 2, 4/ Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu	A, and 4B) ates (B13) Odor (C1) and the standing to used Iron (C4 used Iron (C4 used Plants (D	Living Roof ) I Soils (C6	Secc  	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral	tors (2 or mo d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6)	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
Remarks: )( IYDROLO Wetland Hyr Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	GY trology Indicators: eators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) ti Deposits (B2) nosits (B3) ti or Crust (B4) nosits (B5) Soil Cracks (B6)	magery (B7)	Water-Stained Le MLRA 1, 2, 4/ Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Stunted or Stress Other (Explain in	A, and 4B) ates (B13) Odor (C1) and the standing to used Iron (C4 used Iron (C4 used Plants (D	Living Roof ) I Soils (C6	Secc  	water-Staine 4A, and 4 Drainage Pat Dry-Season Vi Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	tors (2 or mo d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6)	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
Remarks: )( Wetland Hyp Primary India Surface High Wa Saturatio Saturation Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely	GY frology Indicators: ators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2) nosits (B3) it or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial I v Vegetated Concave	magery (B7)	Water-Stained Le MLRA 1, 2, 4/ Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Stunted or Stress Other (Explain in	A, and 4B) ates (B13) Odor (C1) and the standing to used Iron (C4 used Iron (C4 used Plants (D	Living Roof ) I Soils (C6	Secc  	water-Staine 4A, and 4 Drainage Pat Dry-Season Vi Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	tors (2 or mo d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6)	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
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Remarks: )( Wetland Hyu Primary Indic Surface High Wa Saturatio Saturatio Saturatio Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wate	GY drology Indicators: ators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2) posits (B3) it or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial I vegetated Concave vations: er Present? Y	magery (B7) e Surface (B8) es No	Water-Stained Lee MLRA 1, 2, 4/ Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Stunted or Stress Other (Explain in	A, and 4B) ates (B13) Odor (C1) oheres along I uced Iron (C4 uction in Tillec ued Plants (D Remarks)	Living Roof ) I Soils (C6	Secc  	water-Staine 4A, and 4 Drainage Pat Dry-Season Vi Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	tors (2 or mo d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6)	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
Remarks: )( Wetland Hyu Primary India Surface High Wa Saturatio Saturatio Saturatio Saturatio Saturatio Surface Inundatio Sparsely Field Obser Surface Wate Water Table	GY drology Indicators: ators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2) posits (B3) it or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial I vegetated Concave vations: er Present? Y Present? Y	magery (B7) e Surface (B8) es No es No	Water-Stained Lee MLRA 1, 2, 4/ Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Stunted or Stress Other (Explain in Depth (inches): Depth (inches):	A, and 4B) ates (B13) Odor (C1) oheres along I uced Iron (C4 uction in Tillec ued Plants (D Remarks)	Living Rool ) I Soils (C6) I) (LRR A)	Secc  	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season Vi Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	tors (2 or ma d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6) Hummocks	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
Remarks: )( IYDROLO Wetland Hyy Primary Indic Surface High Wa Saturatio Nater M Saturatio Surface Inundatii Sparsely Field Obser Surface Water Water Table Saturation P	GY trology Indicators: tators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) oosits (B3) tt or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial I v Vegetated Concave vations: er Present? Y Present? Y Present? Y Present? Y	magery (B7) e Surface (B8) es No es No es No	Water-Stained Lee     MLRA 1, 2, 4J     Salt Crust (B11)     Aquatic Invertebr     Hydrogen Sulfide     Oxidized Rhizosp     Presence of Red     Recent Iron Redd     Stunted or Stress     Other (Explain in     Depth (inches):     Depth (inch	A, and 4B) ates (B13) Odor (C1) wheres along I uced Iron (C4 uction in Tillec uced Plants (D' Remarks)	Living Root ) I Soils (C6 I) (LRR A)	Secc \ _ \	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season Vi Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	tors (2 or ma d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6) Hummocks	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
Remarks: )( IYDROLO Wetland Hyy Primary Indic Surface High Wa Saturatio Nater M Saturatio Surface Inundatii Sparsely Field Obser Surface Water Water Table Saturation P	GY trology Indicators: tators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) oosits (B3) tt or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial I v Vegetated Concave vations: er Present? Y Present? Y Present? Y Present? Y	magery (B7) e Surface (B8) es No es No es No	Water-Stained Lee MLRA 1, 2, 4/ Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Stunted or Stress Other (Explain in Depth (inches): Depth (inches):	A, and 4B) ates (B13) Odor (C1) wheres along I uced Iron (C4 uction in Tillec uced Plants (D' Remarks)	Living Root ) I Soils (C6 I) (LRR A)	Secc \ _ \	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season Vi Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	tors (2 or ma d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6) Hummocks	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
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Remarks: )( IYDROLO Wetland Hyy Primary Indic Surface High Wa Saturatio Nater M Saturatio Surface Inundatii Sparsely Field Obser Surface Water Water Table Saturation P	GY trology Indicators: tators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) oosits (B3) tt or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial I v Vegetated Concave vations: er Present? Y Present? Y Present? Y Present? Y	magery (B7) e Surface (B8) es No es No es No	Water-Stained Lee     MLRA 1, 2, 4J     Salt Crust (B11)     Aquatic Invertebr     Hydrogen Sulfide     Oxidized Rhizosp     Presence of Red     Recent Iron Redd     Stunted or Stress     Other (Explain in     Depth (inches):     Depth (inch	A, and 4B) ates (B13) Odor (C1) wheres along I uced Iron (C4 uction in Tillec uced Plants (D' Remarks)	Living Root ) I Soils (C6 I) (LRR A)	Secc \ _ \	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season Vi Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	tors (2 or ma d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6) Hummocks	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
Remarks: )( IYDROLO Wetland Hyp Primary Indic Surface High Wa Saturatii Sedimer Drift Dep Algal Ma Torn Dep Algal Ma Torn Dep Surface Iron Dep Surface Inundatii Sparsely Surface Watu Water Table Saturation P (includes cap Describe Rei	GY trology Indicators: tators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) oosits (B3) tt or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial I v Vegetated Concave vations: er Present? Y Present? Y Present? Y Present? Y	magery (B7) e Surface (B8) es No es No es No	Water-Stained Lee     MLRA 1, 2, 4J     Salt Crust (B11)     Aquatic Invertebr     Hydrogen Sulfide     Oxidized Rhizosp     Presence of Red     Recent Iron Redd     Stunted or Stress     Other (Explain in     Depth (inches):     Depth (inch	A, and 4B) ates (B13) Odor (C1) wheres along I uced Iron (C4 uction in Tillec uced Plants (D' Remarks)	Living Root ) I Soils (C6 I) (LRR A)	Secc \ _ \	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season Vi Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	tors (2 or ma d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6) Hummocks	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
Remarks: )( IYDROLO Wetland Hyp Primary Indic Surface High Wa Saturatii Sedimer Drift Dep Algal Ma Torn Dep Algal Ma Torn Dep Surface Iron Dep Surface Inundatii Sparsely Surface Watu Water Table Saturation P (includes cap Describe Rei	GY trology Indicators: tators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) oosits (B3) tt or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial I v Vegetated Concave vations: er Present? Y Present? Y Present? Y Present? Y	magery (B7) e Surface (B8) es No es No es No	Water-Stained Lee     MLRA 1, 2, 4J     Salt Crust (B11)     Aquatic Invertebr     Hydrogen Sulfide     Oxidized Rhizosp     Presence of Red     Recent Iron Redd     Stunted or Stress     Other (Explain in     Depth (inches):     Depth (inch	A, and 4B) ates (B13) Odor (C1) wheres along I uced Iron (C4 uction in Tillec uced Plants (D' Remarks)	Living Root ) I Soils (C6 I) (LRR A)	Secc \ _ \	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season Vi Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	tors (2 or ma d Leaves (B B) Water Table sible on Aeri Position (D2 tard (D3) Test (D5) founds (D6) Hummocks	9) (MLRA (C2) ial Imager ) (LRR A)	1, 2,
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-112.744201

andform (hillslope, terrace, etc.): toe slope ubregion (LRR): E - Back, Man Rong for	St Lat: 40	Local relief (concave,	Inge: <u>SILe</u> , TOLON, KOGW convex, none): <u>NONE</u> Slope (%): <u>O</u> _ Long: <u>112" 44' 39 122" W</u> Datum: <u>Locs S</u>
oil Map Unit Name: 567 - Courten Locu	m 0-4	to slopes	NWI classification: LIUBGX
re climatic / hydrologic conditions on the site typical fo	r this time of ye	ar? Yes <u>×</u> No _	(If no, explain in Remarks.)
re Vegetation 100, Soil NO, or Hydrology NC	significantly	disturbed? Are	"Normal Circumstances" present? Yes X No
re Vegetation NO_, Soil NO_, or Hydrology No	> naturally pro	blematic? (If ne	eeded, explain any answers in Remarks.)
			ocations, transects, important features, e
Hydrophytic Vegetation Present? Yes X Hydric Soil Present? Yes X Wetland Hydrology Present? Yes X	No No No	Is the Sampled within a Wetla	I Area
	Merter ti	enk at y	as aptive slope. 30 70 of
EGETATION – Use scientific names of p		Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>5x 30A</u> )		Species? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant
3			Species Across All Strata: (B)
4	0	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 10 (A/
Sapling/Shrub Stratum (Plot size: 5× 30A)			Prevalence Index worksheet:
1			Total % Cover of: Multiply by:
2			OBL species x 1 =
4.			FACW species $30 \times 2 = 160$
5.		and the second second	FAC species $5 \times 3 = 15$
A REAL PROPERTY OF A REAL PROPER	0	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: <u>S×5</u> )			UPL species x 5 =
1. Juncus arcticus	10	- Y then	Column Totals: <u>105</u> (A) <u>195</u> (B
2. Iba pratensis	20	N FAC	Prevalence Index = B/A = Re
. Verstice americana.	10	N FACW	Hydrophytic Vegetation Indicators:
Euro SP.	- 12	N -	1 - Rapid Test for Hydrophytic Vegetation
inknown graminoie	3	N -	2 - Dominance Test is >50% $3$ - Prevalence Index is $\leq 3.0^1$
7			4 - Morphological Adaptations <sup>1</sup> (Provide supportidata in Remarks or on a separate sheet)
3 9.			5 - Wetland Non-Vascular Plants <sup>1</sup>
10.			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11		Neutrol m	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Noody Vine Stratum (Plot size: 5x30ft)	10	= Total Cover	
			Hydrophytic
2.			Vegetation
	×	= Total Cover	Present? Yes No
A			
% Bare Ground in Herb Stratum     O       Remarks:     IOO			

Profile Desc	ription: (Describe	to the depti	h needed to document the indicator or confirm	the absence	of indicators.)
Depth	Matrix		Redox Features		
(inches)	Color (moist)		Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0-1.5	104R2/1	100		- Loan	
1.5-5	104R3/2	100	11-1 2000 11-10-20	Loand	
5-14	5461	100		Sand	Large cobbles present
	a withment (				
Type: C=Co	oncentration, D=Dep	pletion, RM=	Reduced Matrix, CS=Covered or Coated Sand Gra		cation: PL=Pore Lining, M=Matrix. rs for Problematic Hydric Soils <sup>3</sup> :
			RRs, unless otherwise noted.)		
Histosol	and the second se		Sandy Redox (S5)		n Muck (A10) Parent Material (TF2)
	oipedon (A2)	-	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1)		Shallow Dark Surface (TF12)
Black Hi	stic (A3) In Sulfide (A4)		Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2)		er (Explain in Remarks)
	d Below Dark Surfac		Depleted Matrix (F3)	UII	· · · ·
	ark Surface (A12)		Redox Dark Surface (F6)	<sup>3</sup> Indicato	ors of hydrophytic vegetation and
	lucky Mineral (S1)		Depleted Dark Surface (F7)	wetla	nd hydrology must be present,
	Bleyed Matrix (S4)	and the second	Redox Depressions (F8)	unles	s disturbed or problematic.
Restrictive I	Layer (if present):	APA			and the state of the second second
Туре:					
Depth (in	ches).		the set of		Descento Vec V No
		party light sub-		Hydric Soil	Present? Yes X No
	Definition and	at h	duic-water table is with		
IYDROLO	Definition and	25	y drie - water table is with in the mature of	hin 12 soil	inclus of soil suffe
IYDROLO Wetland Hy	Definition Ord		; check all that apply)	soil	inclus of Soil surfo surfices
IYDROLO Wetland Hy Primary India	Definition Ord		; check all that apply) Water-Stained Leaves (B9) (except	soil	Inches of Sul surfa surface ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2
IYDROLO Wetland Hy Primary India Surface	Def. without one GY drology Indicators cators (minimum of		; check all that apply)	hin 12 Soil 1 Secon V	Inclus of Sal Surfa Surfaces Indary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
IYDROLO Wetland Hy Primary India Surface High Wa	COSC Definition GY drology Indicators sators (minimum of Water (A1) ater Table (A2)		; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	- Secon - V	Incluses of Sal Surfa Surfaces Indary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Irrainage Patterns (B10)
IYDROLO         Wetland Hy         Primary India	COSC Definition GY drology Indicators sators (minimum of Water (A1) ater Table (A2)		; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)		Indary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2)
IYDROLO Wetland Hy Primary India Surface High Wa Saturatia Water M	GY GY Water (A1) ter Table (A2) on (A3)		: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secon 	hdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Irrainage Patterns (B10) Inry-Season Water Table (C2) Iraturation Visible on Aerial Imagery (C
IYDROLO Wetland Hy Primary India Surface High Wa Saturatia Vater M Sedimen	GY GY Water (A1) ther Table (A2) on (A3) larks (B1)		: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Root	Secon 	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) Faturation Visible on Aerial Imagery (C Seomorphic Position (D2)
IYDROLO Wetland Hy Primary India Surface X High Wa Saturatii Water M Sedimen Drift Dep	Construction Construction GY drology Indicators cators (minimum of Water (A1) atter Table (A2) on (A3) larks (B1) nt Deposits (B2)		: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4)	Secon <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Seco</u>	hard the second
IYDROLO         Wetland Hy         Primary India	GY drology Indicators cators (minimum of Water (A1) atter Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) posits (B5)		<pre>; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6)</pre>	→ 12 Soil → Secon - V - D - D - S s (C3) X G X F	ndary Indicators (2 or more required) vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) prainage Patterns (B10) ny-Season Water Table (C2) iaturation Visible on Aerial Imagery (C iseomorphic Position (D2) ihallow Aquitard (D3) AC-Neutral Test (D5)
IYDROLO         Wetland Hy         Primary India         Surface         X         High Wa         X         Saturativ         Water M         Sedimen         Drift Deg         Algal Ma         Iron Deg         Surface	Construction Co	: one required	: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A)	→ 12 Soil → Secon - V - D - D - S s (C3) × G × F - R	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) prainage Patterns (B10) pry-Season Water Table (C2) iaturation Visible on Aerial Imagery (C secomorphic Position (D2) ihallow Aquitard (D3) AC-Neutral Test (D5) taised Ant Mounds (D6) (LRR A)
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IYDROLO         Wetland Hy         Primary India         Surface         X         High Wa         Saturation         Water M         Sedimen         Drift Deg         Algal Ma         Iron Deg         Surface         Inundati         Sparsely	GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concard	: one required	<pre>; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solis (C6) Stunted or Stressed Plants (D1) (LRR A) )) Other (Explain in Remarks)</pre>	→ 12 Soil → Secon - V - D - D - S s (C3) × G × F - R	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) prainage Patterns (B10) pry-Season Water Table (C2) iaturation Visible on Aerial Imagery (C secomorphic Position (D2) ihallow Aquitard (D3) AC-Neutral Test (D5) taised Ant Mounds (D6) (LRR A)
IYDROLO Wetland Hy Primary India Surface X High Wa X Saturatii Water M Sedimet Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concar vations:	: one required Imagery (B7 ve Surface (E	: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) 88)	→ 12 Soil → Secon - V - D - D - S s (C3) × G × F - R	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) prainage Patterns (B10) pry-Season Water Table (C2) iaturation Visible on Aerial Imagery (C secomorphic Position (D2) ihallow Aquitard (D3) AC-Neutral Test (D5) taised Ant Mounds (D6) (LRR A)
IYDROLO         Wetland Hy         Primary India         Surface         X         High Wa         Saturation         Water M         Sedimen         Drift Deg         Algal Ma         Iron Deg         Surface         Inundati         Sparsely	GY GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present?	i: one required I Imagery (B7 ve Surface (E Yes N	: check all that apply) — Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) — Sait Crust (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulfide Odor (C1) — Oxidized Rhizospheres along Living Root — Presence of Reduced Iron (C4) — Recent Iron Reduction in Tilled Soils (C6) — Stunted or Stressed Plants (D1) (LRR A) () — Other (Explain in Remarks) 88)	→ 12 Soil → Secon - V - D - D - S s (C3) × G × F - R	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) prainage Patterns (B10) pry-Season Water Table (C2) iaturation Visible on Aerial Imagery (C secomorphic Position (D2) ihallow Aquitard (D3) AC-Neutral Test (D5) taised Ant Mounds (D6) (LRR A)
IYDROLO         Wetland Hy         Primary India         Surface         X         High Wa         Saturation         Water M         Drift Deg         Algal Ma         Iron Deg         Surface         Inundati         Sparsely         Field Obser         Surface Wat	Construction Co	: one required Imagery (B7 ve Surface (E Yes N Yes N	<pre>; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) () Other (Explain in Remarks) 88) No Depth (inches):</pre>	Secon 	Adary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Irrainage Patterns (B10) Dry-Season Water Table (C2) seaturation Visible on Aerial Imagery (C Seomorphic Position (D2) shallow Aquitard (D3) AC-Neutral Test (D5) taised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
YDROLO Wetland Hy Primary India Surface X High Wa X Saturativ Water W Orift Deg Algal Ma Iron Deg Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P	Control of the second s	Imagery (B7 ve Surface (E Yes M Yes M Yes M	: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) O Other (Explain in Remarks) 88) No X Depth (inches):	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) prainage Patterns (B10) pry-Season Water Table (C2) iaturation Visible on Aerial Imagery (C secomorphic Position (D2) ihallow Aquitard (D3) AC-Neutral Test (D5) taised Ant Mounds (D6) (LRR A)
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YDROLO Wetland Hy Primary India Surface X High Wa X Saturativ Water W Drift Deg Algal Ma Iron Deg Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P	Control of the second s	Imagery (B7 ve Surface (E Yes M Yes M Yes M	: check all that apply)	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Adary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Irrainage Patterns (B10) Dry-Season Water Table (C2) seaturation Visible on Aerial Imagery (C Seomorphic Position (D2) shallow Aquitard (D3) AC-Neutral Test (D5) taised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
IYDROLO         Wetland Hy         Primary India	Control of the second s	Imagery (B7 ve Surface (E Yes M Yes M Yes M	: check all that apply)	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rrainage Patterns (B10) bry-Season Water Table (C2) seaturation Visible on Aerial Imagery (C Seomorphic Position (D2) shallow Aquitard (D3) AC-Neutral Test (D5) taised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
IYDROLO         Wetland Hy         Primary India	Control of the second s	Imagery (B7 ve Surface (E Yes M Yes M Yes M	: check all that apply)	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rrainage Patterns (B10) bry-Season Water Table (C2) seaturation Visible on Aerial Imagery (C Seomorphic Position (D2) shallow Aquitard (D3) AC-Neutral Test (D5) taised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
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		-112.743782
	DATA FORM – Western Mou	intains, Valleys, and Coast Region
-		
oject/Site: <u>Racetrack</u> And	City/County: Hone	11 County Sampling Date: Ole de Ro
plicant/Owner: fish, wildlife an	2 Parks	State: Sampling Point:
vestigator(s): L. Vangtac	Section, Township, Ra	ange: Sile, TOLON, ROGW
ndform (hillslope, terrace, etc.):	Local relief (concave	convex, none): Concoure Slope (%): 2.0
indionin (initisiope, tenace, etc.).	H Lat 418116 30 279" N	Long: 112°44'37.616" Datum: 108884
ibregion (LRR): C- Fock Pith Conter (or		
in wap offic reame		
e climatic / hydrologic conditions on the site typical fo		
re Vegetation Ves., Soil Ves., or Hydrology Ve		"Normal Circumstances" present? Yes X No
e Vegetation NO, Soil NO, or Hydrology N	naturally problematic? (If new problematic)	eeded, explain any answers in Remarks.)
UMMARY OF FINDINGS – Attach site m	ap showing sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X	No	
	No. Is the Sample	d Area
Wetland Hydrology Present? Yes X	No within a Wetla	nd? Yes X No
Remarks: Atwarcal stuation sort	s, vegetation and hud	enologie, where all disturbed
Remarks: Attopical stuation soit	ally upland posture	but in zerle lacetrack Pond
uss extended into this area a	sthis area has be	LE OS A SOIL VOUVOUS SOURCE TOIL
EGETATION – Use scientific names of p	lants. Man induced his	there along the light to k and
	Absolute Dominant Indicator	Dominance Test worksheet: Sparse vegeto
Tree Stratum (Plot size: 5× 30ff.)	<u>% Cover Species?</u> Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3.		Total Number of Dominant Species Across All Strata: (B)
4	1-1-20 J /	
	O = Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: 5×30 ft.)	and the second second second	Prevalence Index worksheet: 300000 Vice-to-til
1		Total % Cover of: Multiply by:
2		OBL species x 1 =
3		FACW species x 2 =
4		FAC species x 3 =
5		FACU species x 4 =
C.50.	= Total Cover	UPL species x 5 =
Herb Stratum (Plot size: 5×5++)	2 Y FACU	Column Totals: (A) (B)
1. Sisymbrium attissimum 2. Baulus belsomiting	US N FAC	(it) whether whether and
2	O.S. N UDL	Prevalence Index = B/A =
Bonnus arvensis	- 0.5 N -	Hydrophytic Vegetation Indicators:
4. unknown grass		1 - Rapid Test for Hydrophytic Vegetation
5		2 - Dominance Test is >50%
6		3 - Prevalence Index is ≤3.0 <sup>1</sup>
		4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8		5 - Wetland Non-Vascular Plants <sup>1</sup>
9		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10	in the second seco	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11	3.5 = Total Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 5x 30CH)		(1) the contract Providence and the first
1.	The state of the second state of the second	Hydrophytic
2		Vegetation
04.0	= Total Cover	Present? Yes <u>No</u>
% Bare Ground in Herb Stratum	State State State State	
Remarks: Soorse vigetation with	in the sample pour	It as this site was executed

Profile Description: (Describe to the depth	needed to document the indicator or confirm	m the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
0-4 10-12 512 100 -		Send
4-9 104R 511 80 -	7.57R 4/16 20 CS M	Sound .
(anapol remains)	and the second	and here a descent to an interest Speed on a started
M. Y MY Streams months of	A second s	and the second second second
Carteria in Carteria		
	<u>and and this wing wing which a</u>	2
Type: C=Concentration, D=Depletion, RM=F Hydric Soil Indicators: (Applicable to all L	Reduced Matrix, CS=Covered or Coated Sand G	rains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
	Sandy Redox (S5)	2 cm Muck (A10)
Histosol (A1)	_ Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	_ Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	_ Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Type: <u>Osphle</u>	-	$\sim$
Depth (inches):		Hydric Soil Present? Yes X No
and secturation is with	and be clessified as Soil-watertedue is within him lenches.	uplent soils. Currently, in 12 inclus of sal surface
Schuttion of a hydric one sectoration is with YDROLOGY	Soil - Watertelde is with	uplent soils. Currently, in izinches of sal surface
Schuttion of a hydric one seturation is with YDROLOGY Wetland Hydrology Indicators:	Soil-Waterteble is within lenches.	Secondary Indicators (2 or more required)
VDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; 	Soil - Wotter teble is within him lenches. check all that apply) Water-Stained Leaves (B9) (except	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
VDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2)	Soil - Wotter teble is within in lenches. check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required) Utater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
VDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3)	Soil - Wotter tedde is within in Leinches. Check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
VDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Soil - Wotter tedde is within         nim Leinches.	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
VDROLOGY VDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Soil - Wotter tedde       IS       within         Image: Solution of the state of the	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)
VDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Soil - Wottertede is within         Im Lenches.         Min Lenches.         Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)         Salt Crust (B11)         Aquatic Invertebrates (B13)         Hydrogen Sulfide Odor (C1)         Oxidized Rhizospheres along Living Room	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) X Geomorphic Position (D2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Soil - Waterteder is within         Image: Solid Stress Stress	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ots (C3) X Geomorphic Position (D2) Shallow Aquitard (D3)
Vertand Hydrology Indicators: Primary Indicators (minimum of one required; 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)	Soil - Waterteder is within         Image: Solid State State         Water-Stained Leaves (B9) (except         MLRA 1, 2, 4A, and 4B)         Salt Crust (B11)         Aquatic Invertebrates (B13)         Hydrogen Sulfide Odor (C1)         Oxidized Rhizospheres along Living Root         Presence of Reduced Iron (C4)         Recent Iron Reduction in Tilled Soils (C6)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Staturation Visible Osition (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Vetland Hydrology Indicators: Primary Indicators (minimum of one required; 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)	Soil - Water-table is within         Image: Solid - Water-Stained Leaves (B9) (except         MLRA 1, 2, 4A, and 4B)	<ul> <li>Secondary Indicators (2 or more required)</li> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>ots (C3) X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> <li>Raised Ant Mounds (D6) (LRR A)</li> </ul>
VDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; 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 Imagery (B7)	Soil - Watertade is within         Image: Solid - Water-Stained Leaves (B9) (except         MLRA 1, 2, 4A, and 4B)         Sait Crust (B11)         Aquatic Invertebrates (B13)         Hydrogen Sulfide Odor (C1)         Oxidized Rhizospheres along Living Rod         Presence of Reduced Iron (C4)         Recent Iron Reduction in Tilled Solis (C6)         Stunted or Stressed Plants (D1) (LRR A         Other (Explain in Remarks)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Staturation Visible Osition (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
VDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; 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 Imagery (B7) Sparsely Vegetated Concave Surface (B86)	Soil - Watertade is within         Image: Solid - Water-Stained Leaves (B9) (except         MLRA 1, 2, 4A, and 4B)         Sait Crust (B11)         Aquatic Invertebrates (B13)         Hydrogen Sulfide Odor (C1)         Oxidized Rhizospheres along Living Rod         Presence of Reduced Iron (C4)         Recent Iron Reduction in Tilled Solis (C6)         Stunted or Stressed Plants (D1) (LRR A         Other (Explain in Remarks)	<ul> <li>Secondary Indicators (2 or more required)</li> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>ots (C3) X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> <li>Raised Ant Mounds (D6) (LRR A)</li> </ul>
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required;         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 Imagery (B7)         Sparsely Vegetated Concave Surface (B8)	Soil - Water table       IS Within         Image: Solution of the second sec	Secondary Indicators (2 or more required)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required:         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 Imagery (B7)         Sparsely Vegetated Concave Surface (B85)         Field Observations:         Surface Water Present?	Soil - Wotter tecker is within         Image: Solution of the state is within the neckers.         Check all that apply)	Secondary Indicators (2 or more required)
With the second seco	Soil - Wotter tecker is within         Image: Solution of the state is within the neckers.         Check all that apply)	Secondary Indicators (2 or more required)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required;         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 Imagery (B7)         Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes         Nater Table Present?       Yes         Yes       Notes         Saturation Present?       Yes	Soil - Wotter tecker is within         Image: Solution of the state is within the neckers.         Check all that apply)	Secondary Indicators (2 or more required)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required;         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 Imagery (B7)         Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes         Nater Table Present?       Yes         Saturation Present?       Yes         Mater Table Present?       Yes         Nater Table Present?       Yes         Nater Table Present?       Yes         Princudes capillary fringe)       Yes	Soil - Wotter tecker is within         Image: Solution of the state is within the neckers.         Check all that apply)	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Staturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required;         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 Imagery (B7)         Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes         Noter Table Present?       Yes         Saturation Present?       Yes         Noter Table Present?       Yes         Staturation Present?       Yes         Staturation Present?       Yes         Mater Table Present?       Yes         Staturation Present?       Yes         Surface Bailary fringe)       Describe Recorded Data (stream gauge, monital present)	Soil - Watertedde is within	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Staturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required;         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 Imagery (B7)         Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes         Nator Table Present?       Yes         Nater Table Present?       Yes         Saturation Present?       Yes         Sourcude conclease C	Soil - Water-tecker is within         Image: Solid - Water-Stained Leaves (B9) (except         MLRA 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9) ots (C3) X Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  and Hydrology Present? Yes No if available:
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required;         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 Imagery (B7)         Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes         Noter Table Present?       Yes         Saturation Present?       Yes         Noter Table Present?       Yes         Staturation Present?       Yes         Staturation Present?       Yes         Mater Table Present?       Yes         Staturation Present?       Yes         Surface Bailary fringe)       Describe Recorded Data (stream gauge, monital present)	Soil - Water tede       B with         in Lonches.       Swith	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9) ots (C3) Ceomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  A aised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  and Hydrology Present? Yes No If available:
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required;         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 Imagery (B7)         Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes         Noter Table Present?       Yes         Saturation Present?       Yes         Noter Table Present?       Yes         Staturation Present?       Yes         Staturation Present?       Yes         Mater Table Present?       Yes         Staturation Present?       Yes         Surface Bailary fringe)       Describe Recorded Data (stream gauge, monital present)	Soil - Watertedde is within	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9) ots (C3) Ceomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  A aised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  and Hydrology Present? Yes No If available:
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required;         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 Imagery (B7)         Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes         Noter Table Present?       Yes         Saturation Present?       Yes         Noter Table Present?       Yes         Staturation Present?       Yes         Staturation Present?       Yes         Mater Table Present?       Yes         Staturation Present?       Yes         Surface Bailary fringe)       Describe Recorded Data (stream gauge, monital present)	Soil - Water tede       B with         in Lonches.       Swith	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9) ots (C3) Ceomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  A aised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  and Hydrology Present? Yes No If available:

Project/Site: Vare track Hond	City/County: Por	well Count_ Sampling Date: 00/06/20
		State: MT Sampling Point: 200
		, Range: SILLE, TOLEN, ROGW
		ive, convex, none): Slope (%):
Subragion (I BB): E-Pack , Mto Paras I f	Fred 1 at 410 16 30 419"	N_ Long: 112°44'37.466"W Datum: NGS 84
		NVI classification:
Are climatic / hydrologic conditions on the site typical		
		Are "Normal Circumstances" present? Yes X No
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology	naturally problematic? (I	If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showing sampling poir	nt locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No	The second s
		pled Area
		etland? Yes <u>No X</u>
Remarks: Atypical situation - Julis	resitation and high	but in 2016 Recetrack for was
This location was historico	115 uplane pasture	but in 2016 lacetrack for was
DEALER INTO THIS ONE & C	is this area who u	indication along the clock fork Rue
VEGETATION – Use scientific names of		
Tree Stratum (Plot size: 5×30)	Absolute Dominant Indicat <u>% Cover</u> <u>Species?</u> <u>Status</u>	o decise i
		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
S-2-	= Total Cover	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: Sx 3D		Prevalence Index worksheet: No Vogtation
1		Total % Cover of: Multiply by:
23.		OBL species x 1 =
4		FACW species x 2 =
5.		FAC species x 3 =
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: <u>5×5</u> )		UPL species x 5 =
1		Column Totals: (A) (B)
2		Prevalence Index = B/A =
3		Hydrophytic Vegetation Indicators:
4		1 - Rapid Test for Hydrophytic Vegetation
56		2 - Dominance Test is >50%
6		
8.		4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants <sup>1</sup>
9	in the second second	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
9	(Parteril)	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		be present, unless disturbed or problematic.
10 11	= Total Cover	
10 11 <u>Woody Vine Stratum</u> (Plot size: <u>5x30</u> )	= Total Cover	And the second
10	= Total Cover	- Hydrophytic
10 11 <u>Woody Vine Stratum</u> (Plot size: <u>5x30</u> )		— Hydrophytic Vegetation Present? Yes NoX
10 11 <u>Woody Vine Stratum</u> (Plot size: <u>5 × 30</u> ) 1	= Total Cover	Vegetation
10 11 <u>Woody Vine Stratum</u> (Plot size: <u>5 × 30</u> ) 1 2	= Total Cover	Vegetation

0.010101

Profile Descri	iption: (Describe t	o the depth	n needed to docu	ment the i	ndicator	or confirm	the absenc	e of indicators.	)
Depth _	Matrix		Red	ox Features	s				- Internet
(inches)	Color (moist)		Color (moist)	%	Type'	Loc <sup>2</sup>	Texture		Remarks
O-Le.	IDTE S/I	100					Sanc		
lo-llet	IDYR S/1	50	THE REAL PROPERTY.	to be to serve a	New York		Sand	50% 0	obble
	and the party	-	Long Lat						Hand Barring rates
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1.5	1-1-12			A	A PERSONAL PROPERTY
									Louis and the second
	12000 Mar		and the second sec						
	S. John Stemport		TO ALL A DE LOS AND						nos contratorios en
		and the second	Maple Andrew Hy	218		12.00	and the second		This I DOLK NOT
the mounter	of Instances a	to new of	another of the					100 - 100 - 100 B	NUMBER OF BUSCH
Type: C=Cor	ncentration, D=Depl	etion RM=F	Reduced Matrix. C	S=Covered	d or Coate	d Sand Gr	ains. <sup>2</sup> Lo	ocation: PL=Pol	e Lining, M=Matrix.
	dicators: (Applica						Indicat	tors for Probler	natic Hydric Soils <sup>3</sup> :
Histosol (	A1)		Sandy Redox	(S5)			_ 20	cm Muck (A10)	
	pedon (A2)		Stripped Matri	x (S6)				ed Parent Materi	
Black His	tic (A3)		Loamy Mucky			MLRA 1)			Surface (TF12)
	Sulfide (A4)		Loamy Gleyed		!)		Ot	her (Explain in F	Remarks)
	Below Dark Surface	e (A11)	_ Depleted Matr	and a second second second			3	tion of he describe	tis us actation and
	k Surface (A12)	-	Redox Dark S						tic vegetation and nust be present,
	ucky Mineral (S1)	-	Depleted Dark		. ()			ess disturbed or	
	eyed Matrix (S4) ayer (if present):		Redox Depres	SIONS (FO)	1501		unic		problemado
	ayer (ii present).								
Type:	_						Hydric So	il Present?	es No X
Depth (incl Remarks:	the choice preservet.	st ce	brt would	2 svr	part	nje			owert is not
Remarks:	Hizansloo present:	st ce	but would	2 54	part	nje			prent is not
Remarks: IYDROLOC Wetland Hyd	BY rology Indicators:	55 th			part	nje	ne sul	s dula	
Remarks: IYDROLOO Wetland Hyd Primary Indica	BY rology Indicators: ators (minimum of o	ne required;	check all that ap	oly)			ne sult	s develop	s (2 or more required)
Remarks: IYDROLOO Wetland Hyd Primary Indica Surface V	GY rology Indicators: ators (minimum of o Vater (A1)	ne required;	check all that ap	oly) ained Leav	es (B9) (e		ne sult	ondary Indicator Water-Stained I	s (2 or more required) .eaves (B9) (MLRA 1, 2
Remarks: IYDROLOO Wetland Hyd Primary Indica Surface V High Wat	GY rology Indicators: ators (minimum of o Vater (A1) er Table (A2)	ne required;	<u>check all that ap</u> Water-St MLR/	ply) ained Leav	es (B9) (e			ondary Indicator Water-Stained I 4A, and 4B)	s (2 or more required) .eaves (B9) (MLRA 1, 2
Remarks: IYDROLOO Wetland Hyd Primary Indica Surface V High Wat X Saturation	GY rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3)	ne required;	<u>; check all that ap</u> Water-St MLR/ Salt Crus	oly) cained Leav A 1, 2, 4A, a st (B11)	es (B9) (e and 4B)			ondary Indicator Water-Stained I 4A, and 4B) Drainage Patter	<u>s (2 or more required)</u> .eaves (B9) ( <b>MLRA 1, 2</b> ns (B10)
Remarks: IYDROLOO Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma	GY rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1)	ne required.	check all that ap Water-St Mater-St Mater-St Salt Crus Aquatic I	oly) cained Leav A 1, 2, 4A, a st (B11) nvertebrate	res (B9) (e and 4B) es (B13)			ondary Indicator Water-Stained I 4A, and 4B) Drainage Patter Dry-Season Wa	<u>s (2 or more required)</u> .eaves (B9) ( <b>MLRA 1, 2</b> ns (B10) ter Table (C2)
Remarks: IYDROLOG Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment	GY rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2)	ne required;	check all that ap Water-Si MLR/ Salt Crus Aquatic I Hydroge	bly) arined Leav A 1, 2, 4A, a st (B11) nvertebrate n Sulfide O	es (B9) (e and 4B) es (B13) dor (C1)	except		ondary Indicator Water-Stained I 4A, and 4B) Drainage Patter Dry-Season Wa Saturation Visib	s (2 or more required) .eaves (B9) ( <b>MLRA 1, 2</b> ns (B10) ter Table (C2) le on Aerial Imagery (CS
Remarks: IYDROLOO Wetland Hyd Primary Indica Surface W High Wat X Saturation Water Ma Sediment Drift Depo	Contemporation of the second s	ne required;	check all that ap Water-Si MLR/ Salt Crus Aquatic I Hydroge Oxidized	bly) ained Leav A 1, 2, 4A, i st (B11) nvertebrate n Sulfide O Rhizosphe	es (B9) (¢ and 4B) es (B13) dor (C1) res along	except Living Roo	Sec 	ondary Indicator Water-Stained I 4A, and 4B) Drainage Patter Dry-Season Wa	s (2 or more required) .eaves (B9) ( <b>MLRA 1, 2</b> ns (B10) ter Table (C2) le on Aerial Imagery (CS sition (D2)
Remarks: IYDROLOO Wetland Hyd Primary Indics Surface W High Wat Saturation Water Ma Sediment Drift Depu Algal Mat	Contemporation of the second s	ne required;	check all that ap Water-SI MLR/ Salt Crus Aquatic 1 Hydroge Oxidized Presence	ply) ained Leav A 1, 2, 4A, i st (B11) n Sulfide O Rhizosphe e of Reduce	res (B9) (¢ and 4B) es (B13) dor (C1) eres along ed Iron (C-	Eliving Roo	Sec 	ondary Indicator Water-Stained I 4A, and 4B) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po	s (2 or more required) .eaves (B9) ( <b>MLRA 1, 2</b> ns (B10) ter Table (C2) le on Aerial Imagery (C9 sition (D2) d (D3)
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Project/Site: Pacetrack Rond			Intains, Valleys, and Coast Region
Applicant/Owner: Fish, Wildlife o	me Porks	- RUI B.H	State: FTT Sampling Point: PT 11
nvestigator(s): <u>C. Komster</u>			ange: <u>SILE, TOLEN, ROGW</u>
andform (hillslope, terrace, etc.):	00	Local relief (concave,	convex, none): <u>None</u> Slope (%): <u>O.</u>
			Long: 1124416.356" W Datum: NGS?
Soil Map Unit Name: Ster - Courton	locin 0	-le lo slope	S NWI classification:
Are climatic / hydrologic conditions on the site typic			(If no, explain in Remarks.)
Are Vegetation <u>ND</u> , Soil <u>ND</u> , or Hydrology	NO significantly	disturbed? Are	"Normal Circumstances" present? Yes <u>X</u> No
re Vegetation <u>NO</u> , Soil <u>NO</u> , or Hydrology	NO naturally pro	blematic? (If n	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site	e map showing	sampling point	ocations, transects, important features, etc
Hydrophytic Vegetation Present? Yes	No X		AN OR COMPANY AND
Hydric Soil Present? Yes	No X	Is the Sample	
Wetland Hydrology Present? Yes X	No	within a Wetla	nd? Yes No X
Remarks: , barears	15 deman	coarie be	top of slope.
Com (Second Print of the Co		22	I typingan durinde piel
		- Stantikt	Consider Between Mith Incomentation (Chapter of Chapter
EGETATION – Use scientific names of	of plants.	Con Reality and	The second secon
Tree Stratum (Plot size: 5×30)	Absolute <u>% Cover</u>	Dominant Indicator Species? Status	Dominance Test worksheet:
1.			Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.			
3	101 C		Total Number of Dominant Species Across All Strata:
4			a second a s
	0	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: Sx 30	)		Prevalence Index worksheet:
1			Total % Cover of: Multiply by:
3.			OBL species x 1 =
4.			FACW species $40 \times 2 = 80$
5			FAC species $3 = 3$
	0	= Total Cover	FACU species $10 \times 4 = 40$
Herb Stratum (Plot size: <u>5 × S</u> )	30	1	UPL species $58 \times 5 = 190$
1. <u>Plentago eriopoda</u>		Y FACW	Column Totals: $\underline{93}$ (A) $\underline{323}$ (B)
2. Pritolium longipes	35	Y UPL	Prevalence Index = B/A = 3.49
4. Sonchus anumsis-basal luca		N FACU	Hydrophytic Vegetation Indicators:
5. Medicaion setura	3	N UPL	1 - Rapid Test for Hydrophytic Vegetation     2 - Dominance Test is >50%
6. Incus arcticus	.5	N FACW	$3 - Prevalence Index is < 3.0^{1}$
7		increasing in the subble of	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8			data in Remarks or on a separate sheet)
9			5 - Wetland Non-Vascular Plants
10		the state of the	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11		1	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 5x 30	<u>4'5</u>	= Total Cover	so prosent, unicos distarbed or problematic.
1.			Unders budie
2			Hydrophytic Vegetation
		Total Cover	Present? Yes No X
% Bare Ground in Herb Stratum	10.0		
% Bare Ground in Herb Stratum Remarks: Tiffer のでののです。 ~	1820. R	stre vegeta	tion mix

Profile Description: (Describe to the dept	h needed to document the indicator or confirm	the absence of indicators.)
Depth <u>Matrix</u> (inches) Color (moist) %	<u>Redox Features</u> Color (moist) % <u>Type<sup>1</sup></u> Loc <sup>2</sup>	Texture Remarks
		Sanda Clar literin
0 0 1010 011 1000		and the second s
6-19t 7.5-12 4/4 95		loamy sand cooples 15-Ze
1042211 S	The state state	
ACTURE CONTRACTOR AND		
Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered or Coated Sand Gr	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
Hydric Soil Indicators: (Applicable to all L		2 cm Muck (A10)
Histosol (A1)	Sandy Redox (S5) Stripped Matrix (S6)	Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Туре:		
Depth (inches):		Hydric Soil Present? Yes <u>No X</u>
Dominia Epidea Li ACM of EAC Anno EAC Anno EAC		A NEW MARK MARKAN
HYDROLOGY Wetland Hydrology Indicators:	t check all that apply)	Secondary Indicators (2 or more required)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required		Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2
AYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required         Surface Water (A1)         High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required         Surface Water (A1)         High Water Table (A2)         X Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HyDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C66     Stunted or Stressed Plants (D1) (LRR A 7) Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required         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-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C66     Stunted or Stressed Plants (D1) (LRR A 7) Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solis (C6     Stunted or Stressed Plants (D1) (LRR A )     Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
AYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required         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 Imagery (B7         Sparsely Vegetated Concave Surface (E	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solis (C6     Stunted or Stressed Plants (D1) (LRR A )     Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C6     Stunted or Stressed Plants (D1) (LRR A 7) Other (Explain in Remarks) 38) No     Depth (inches):     Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3) (C3) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C6     Stunted or Stressed Plants (D1) (LRR A     Other (Explain in Remarks) 88) No     Depth (inches): Depth (inches): Wetl	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C4     Saturation Visible on Aerial Image
AyDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solis (C6     Stunted or Stressed Plants (D1) (LRR A ) O ther (Explain in Remarks) B8) No Depth (inches): Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one required 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 Imagery (B7 Sparsely Vegetated Concave Surface (E Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present?	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C6     Stunted or Stressed Plants (D1) (LRR A     Other (Explain in Remarks) 88) No     Depth (inches): Depth (inches): Wetl	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C4     Saturation Visible on Aerial Image
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C6     Stunted or Stressed Plants (D1) (LRR A     Other (Explain in Remarks) 88) No     Depth (inches): Depth (inches): Wetl	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C4     Saturation Visible on Aerial Image
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C6     Stunted or Stressed Plants (D1) (LRR A     Other (Explain in Remarks) 88) No     Depth (inches): Depth (inches): Wetl	Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C3)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)

				Intains, Valleys, and Coast Region
				El Carty Sampling Date: 00/06/2
nvestigator(s): V. Vanstead				
				convex, none): Slope (%): _OS
Subragion (I RR): E- Dack Man hana I find	pet 1st. 41	211639	. Lolox "N	Long: 1/2°44'16,337"W Datum: 126584
				NWI classification: None
Are climatic / hydrologic conditions on the site typical for				
				"Normal Circumstances" present? Yes <u>\</u> No
Are Vegetation No., Soil No., or Hydrology N				eeded, explain any answers in Remarks.)
		samplin	g point i	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X Hydric Soil Present? Yes X		Is th	e Sampleo	d Area
Wetland Hydrology Present? Yes X				nd? Yes X No
Remarks: instance and arsunt in		innel	until	expanded pond in 2016
according to landance	5			
			that st	Deale of Science Dark Turker of 112
/EGETATION – Use scientific names of p	and the second second			
Tree Stratum (Plot size: 5×30 ft.)		Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:
2		_		Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 5×30A)	0	= Total Co	ver	That Are OBL, FACW, or FAC: (A/B)
1. Salix bebbigner	_ T _	Y	FACW	Prevalence Index worksheet:
2. Patria occidentalis	3	Y	FACH	
3. Salix buthi	3	1	FACIN	OBL species         x 1 =           FACW species         x 2 =
4. Pubes lacustre			TH	FAC species x 3 =
5	16	= Total Co		FACU species x 4 =
Herb Stratum (Plot size: 5× 5A)	_14	- 10tal C0	vei	UPL species x 5 =
1. Joli dassa SID	3	N	~	Column Totals: (A) (B)
2. Incus arcticus	55	1	FACW	Prevalence Index = B/A =
3. Trifulum longiplis 4. Trichichin Maritima		N	FAC OBL	Hydrophytic Vegetation Indicators:
5. Ba acatensis	0	N	FAC	1 - Rapid Test for Hydrophytic Vegetation
6. Potentilla anscring	2	N	OBL	$\swarrow$ 2 - Dominance Test is >50% 3 - Prevalence Index is $\leq 3.0^1$
7. Covex rebrascensis	10	N	OBL	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8. Alopecurus annoinceus	2 3	N	FAC	data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must
11	84	- Total Cov		be present, unless disturbed or problematic.
0	_01:	- Total Cov	CI	
Woody Vine Stratum (Plot size: <u>Sx30</u> ]	A CONTRACTOR			Hydrophytic
Woody Vine Stratum (Plot size: <u>S × 30</u> P) 1				Vegetation Present? Yes No
Woody Vine Stratum         (Plot size:				
Woody Vine Stratum         (Plot size:	0	= Total Cov	er	

	th needed to document the indicator or confirm	the absence of indicators.)
	Redox Features	
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
0- Le 10-18 2/1 100	A Design of the state of the state of the	net
		Siltide mucki moverent
6-12 10912211 100		Bring During The Ant
A STATE OF THE PARTY AND AND		
a second to be a seco	and the strength of the State of the strength of the	
- and - Frank Samulan mathematic	In the second se	the property of the set of another
		and the second of the second second
nte and set the treat of a set of	<u>n stellage Internation setters (anterna</u> )	
	Reduced Matrix, CS=Covered or Coated Sand Gra	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all	LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
K Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3) Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Thick Dark Surface (A12)	Depleted Dark Surface (F0)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Type: Cooble	PO PARAMITE	
1ype	terrer and a second second and a second	Hydric Soil Present? Yes 📈 No
Remarks: Spills of this se	maling nont do not mee	
loan with hyperolo	thick layer of plat, use of combined increase	a hydric soil.
loom with hyerolo 0046 HYDROLOGY	S consined incide	
Loam with hyando 0046 HYDROLOGY Wetland Hydrology Indicators:	35 antined increate	a hydrict soil.
loom with hyerolo 0046 HYDROLOGY	d; check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	d; check all that apply) Water-Stained Leaves (B9) (except	Secondary Indicators (2 or more required) 
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	<ul> <li><u>Secondary Indicators (2 or more required)</u></li> <li>Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C</li> </ul>
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo	Secondary Indicators (2 or more required) 
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Startation Visible on Aerial Imagery (C Shallow Aquitard (D3)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require 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)	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require 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)	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A)	Secondary Indicators (2 or more required)
bom with hyperbolo     bong in the image in the imag	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) 37) Other (Explain in Remarks)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require 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)	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) 37) Other (Explain in Remarks)	Secondary Indicators (2 or more required)
bom with hyperbolo     bong in the image in the imag	d; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6 Stunted or Stressed Plants (D1) (LRR A) 37) Other (Explain in Remarks)	Secondary Indicators (2 or more required)
bom with hyperbolo      bom hyperbology      Wetland Hydrology Indicators:     Primary Indicators (minimum of one require     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 Imagery (E     Sparsely Vegetated Concave Surface      Field Observations:     Surface Water Present? Yes X	d; check all that apply)	Secondary Indicators (2 or more required)
bom with hyperbolo      bom hyperbology      Wetland Hydrology Indicators:     Primary Indicators (minimum of one require     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 Imagery (E     Sparsely Vegetated Concave Surface      Field Observations:     Surface Water Present? Yes X	d; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) To ther (Explain in Remarks) (B8) No Depth (inches): 12	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C     Saturation Visible on Aerial Im
Image: Second Stress	d; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) To ther (Explain in Remarks) (B8) No Depth (inches): 12	Secondary Indicators (2 or more required)
born with hyperbolic      born with hyp	d; check all that apply)	Secondary Indicators (2 or more required)
born with hyperbolic      born with hyp	d; check all that apply)	Secondary Indicators (2 or more required)
Image: Second Stress         Primary Indicators (minimum of one require         Surface Water (A1)         High Water Table (A2)         X Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Suif Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface Field Observations:         Surface Water Present?       Yes         Yes       Yes         (includes capillary fringe)         Describe Recorded Data (stream gauge, mage)	d; check all that apply)	Secondary Indicators (2 or more required)
born with hyperbolic      born with hyp	d; check all that apply)	Secondary Indicators (2 or more required)
Image: Second Stress         Primary Indicators (minimum of one require         Surface Water (A1)         High Water Table (A2)         X Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Suif Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface Field Observations:         Surface Water Present?       Yes         Yes       Yes         (includes capillary fringe)         Describe Recorded Data (stream gauge, mage)	d; check all that apply)	Secondary Indicators (2 or more required)
Image: Second Stress         Primary Indicators (minimum of one require         Surface Water (A1)         High Water Table (A2)         X Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Suif Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface Field Observations:         Surface Water Present?       Yes         Yes       Yes         (includes capillary fringe)         Describe Recorded Data (stream gauge, mage)	d; check all that apply)	Secondary Indicators (2 or more required)
Image: Second Stress         Primary Indicators (minimum of one require         Surface Water (A1)         High Water Table (A2)         X Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Suif Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface Field Observations:         Surface Water Present?       Yes         Yes       Yes         (includes capillary fringe)         Describe Recorded Data (stream gauge, mage)	d; check all that apply)	Secondary Indicators (2 or more required)

WETLAND DETERMINATION D				
Project/Site: Vacetrack Hond	- 10 C	City/Cou	inty: the	11 Cente Sampling Date: 06 107 1201
Applicant/Owner: Fish huldlife and Park				
nvestigator(s): . Comstead		Section,	Township, R	ange: Sile, TOLON, ROGW
andform (hillslope, terrace, etc.): +creace		Local re	lief (concave,	convex, none): <u>vove</u> Slope (%): <u>0,S</u>
Subregion (LRR): E- Pack Mth Ronge I fore	Lat: 41	°1613	3.641"N	Long: 112 441 17.156"W Datum: WGS 84
Soil Map Unit Name: Sle 2 - Carten loev	n O-1	170 8	lopes	NWI classification: Mone
Are climatic / hydrologic conditions on the site typical for th				
				"Normal Circumstances" present? Yes X No
Are Vegetation 125, Soil NO, or Hydrology No	naturally pr	oblematic	? (If n	eeded, explain any answers in Remarks.)
				locations, transects, important features, etc.
		J Samp	ing point	iocations, transects, important leatures, etc.
Hydrophytic Vegetation Present? Yes X I Hydric Soil Present? Yes X I		Is	the Sample	d Area
Wetland Hydrology Present? Yes Yes	No			nd? Yes No
Remarks: Done or by B. Morten to slightly lover alevation to Mixed with give higher aleva	is de	tch	which	properts to area area is
slighting lover elever	thong th	other	Side	of Ench
		apar 11	my h	should patches a grianz.
EGETATION – Use scientific names of plan		- 18		
Tree Stratum (Plot size: 5×30-9 )			ant Indicator s? Status	Dominance Test worksheet:
1			<u>otatuo</u>	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: 5×30f+)	0	_ = Total	Cover	That Are OBL, FACW, or FAC: 0.33 (A/B)
1				Prevalence Index worksheet:
2				Total % Cover of:Multiply by:
3				OBL species x 1 =
4				FACW species $17$ $x_2 = 24$ FAC species $25$ $x_3 = 75$
5	_	-		FACU species $30 \times 4 = 120$
Herb Stratum (Plot size: 5×5++)	0	= Total	Cover	UPL species $4S \times 5 = 72S$
1. Dactulis cluncration	.30	Y	FACU	Column Totals: 119 (A) 451 (B)
2. Bromes Corridotus	25	Y	UPL	Prevalence Index = B/A = 3.79
3. Ren protonals	25	Y	FAC	Hydrophytic Vegetation Indicators:
4. Medicarop Sativa	20	N	UPL	1 - Rapid Test for Hydrophytic Vegetation
5. Departis laevigatum	5	N	- FACW	2 - Dominance Test is >50%
6. Mantego enpica		N	- FACW	3 - Prevalence Index is ≤3.0 <sup>1</sup>
7. Potentille ansenner		N	OBL	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8 9.				data in Remarks or on a separate sheet)5 - Wetland Non-Vascular Plants <sup>1</sup>
10.	-			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	119	= Total C	over	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 5×309)				Using reflect (1940)
2		-		Hydrophytic Vegetation
2	-	= Total C	over	Present? Yes <u>No</u>
% Bare Ground in Herb Stratum		- Total C	UVEI	
	sceens	plu	+ 13 fa	ind in hospitale. Many areas out
	morted	ba	Meum	prease -
Hoblem	ICAIC V	edeter.	nor t - v	K which is penedically

Profile Desci	ription: (Describe	to the de	oth needed to docu	ment the in	ndicator	or confirm	m the absence o	of indicators.)	1000
Depth	Matrix			ox Features					
(inches)	Color (moist)	%	Color (moist)			Loc <sup>2</sup>	Texture	Remarks	
0-1.5	104R2/1	100		comins 1 and			Pent		
1.5-10	104R2/1	100	And the second second				day loam.	how on	A PARTY INFORM
10-14	104852	45	FUR 5/8	2%	0	AA	clay loam	0	Real ange
10-1-1			The	1 10				COL STORE WIN	ALC: UNK
	10482/2	28	- auto sh	1 00/					
14-18+	5G5/2	80	7.5 4R 5/8	20%	C	M	clay loam		
	A hey shide the		na Sound	-	_				
18 chings	e important in	10000	and and and	nil	100.00			AL-BOMICHIS N	YRASON
Type: C=Co	ncentration, D=Dep	letion, RM	I=Reduced Matrix, C	S=Covered	or Coat	ed Sand G	Brains. <sup>2</sup> Loca	ation: PL=Pore Lining, M	
Hydric Soil I	ndicators: (Applic	able to al	I LRRs, unless othe	erwise note	ed.)			s for Problematic Hydri	c Solls :
Histosol	(A1)		Sandy Redox					Muck (A10)	
	ipedon (A2)		Stripped Matri					Parent Material (TF2)	E12)
Black His			Loamy Mucky			DT MLRA 1		Shallow Dark Surface (T r (Explain in Remarks)	(2)
	n Sulfide (A4)	- (044)	Loamy Gleyed		)		Other		
	Below Dark Surfac	e (A11)	Depleted Matr Redox Dark S	A			<sup>3</sup> Indicator	s of hydrophytic vegetation	on and
	lucky Mineral (S1)		Depleted Dark		7)			d hydrology must be pres	
	leyed Matrix (S4)		Redox Depres		.,			disturbed or problematic	
	ayer (if present):	distant							
Type:									
							Undria Cail I	Present? Yes X	No
	thes).						Hydric Soll r	10301111 100	140
Remarks:	0054,	Pichu	re only .	to 14 1071	211	utic p	prube to	confirm belo	ow 14"
Remarks:	0054, GY	Pictu	re only .	to 14 10115	21/	utic p	1.	confirm belo	en 14"
Remarks:	0054 GY drology Indicators:		re only	to 14 Lone	211	utic p	probe to	confirm belo	e required)
Remarks: YDROLO Wetland Hyd Primary Indic	GY Grotogy Indicators: ators (minimum of c		ed; check all that app Water-St		211,		soube to <u>Secon</u>	confirm belo	
Remarks: YDROLO Wetland Hyo Primary Indic Surface	GY Grology Indicators: eators (minimum of of Water (A1)		Water-St	ained Leave	es (B9) (		soube to <u>Secon</u>	confirm belo	
Remarks: YDROLO Wetland Hyd Primary Indic Surface X High Wa	GY drology Indicators: eators (minimum of of Water (A1) ter Table (A2)		Water-St	ained Leav A 1, 2, 4A, a	es (B9) (		Second 	dary Indicators (2 or more ater-Stained Leaves (B9)	
Remarks: YDROLO Wetland Hyo Primary Indic Surface X High Wa X Saturatic	GY drology Indicators: eators (minimum of of Water (A1) tter Table (A2) on (A3)		Water-St MLRA Salt Crus	ained Leav A <b>1, 2, 4A,</b> a st (B11)	es (B9) ( and 4B)		Second Wa	dary Indicators (2 or more ater-Stained Leaves (B9) 4A, and 4B)	(MLRA 1, 2
Remarks: YDROLOO Wetland Hyo Primary Indic Surface X High Wa Saturatic Water M	GY drology Indicators: eators (minimum of c Water (A1) tter Table (A2) on (A3) arks (B1)		Water-St     MLRA     Salt Crus     Aquatic I	ained Leave A 1, 2, 4A, a st (B11) nvertebrate	es (B9) ( and 4B) s (B13)		Second Second With Dr Dr Dr	dary Indicators (2 or more ater-Stained Leaves (B9) 4A, and 4B) ainage Patterns (B10)	( <b>MLRA 1, 2</b> C2)
Remarks: YDROLOG Wetland Hyd Primary Indic Surface X High Wa Saturatic Water M Sedimer	GY drology Indicators: eators (minimum of c Water (A1) tter Table (A2) on (A3) arks (B1) nt Deposits (B2)		Water-St MLRA Salt Crus Aquatic I X Hydrogei	ained Leave A 1, 2, 4A, a st (B11) nvertebrate n Sulfide Od	es (B9) ( and 4B) s (B13) dor (C1)	except	<u>Second</u> <u>Second</u> <u>Dr</u> Second	dary Indicators (2 or more ater-Stained Leaves (B9) <b>4A, and 4B)</b> ainage Patterns (B10) y-Season Water Table (C aturation Visible on Aerial	( <b>MLRA 1, 2</b> C2)
Remarks: YDROLOO Wetland Hyo Primary Indic Surface X High Wa Saturatic Water M Sedimer Drift Dep	GY frology Indicators: eators (minimum of c Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)		Water-St MLRA Salt Crus Aquatic I X Hydrogen Oxidized	ained Leave A 1, 2, 4A, a st (B11) nvertebrate n Sulfide Od	es (B9) ( and 4B) s (B13) dor (C1) res along	except g Living Ro	Second Second Wi Dr Dr Second	dary Indicators (2 or more ater-Stained Leaves (B9) <b>4A, and 4B)</b> rainage Patterns (B10) y-Season Water Table (C	( <b>MLRA 1, 2</b> C2)
Remarks: YDROLOO Wetland Hyo Primary Indic Surface X High Wa X Saturatic Water M Sedimer Drift Dep Algal Ma	GY frology Indicators: cators (minimum of c Water (A1) ter Table (A2) on (A3) arks (B1) th Deposits (B2) posits (B3) at or Crust (B4)		Water-St MLRA Salt Crus Aquatic I Hydrogei Oxidized Presence	ained Leave A <b>1, 2, 4A, a</b> st (B11) nvertebrate n Sulfide Oo Rhizosphe	es (B9) ( and 4B) s (B13) dor (C1) res along ed Iron (C	except g Living Ro	Second Wi Dr Dr Sr pots (C3) Ge St	dary Indicators (2 or more ater-Stained Leaves (B9) <b>4A, and 4B)</b> ainage Patterns (B10) y-Season Water Table (C aturation Visible on Aerial comorphic Position (D2)	( <b>MLRA 1, 2</b> C2)
Remarks: YDROLO Wetland Hyo Primary Indic Surface Surface Saturatic Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep	GY drology Indicators: cators (minimum of c Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) arks (B3) art Deposits (B3) art or Crust (B4) posits (B5)		Water-St MLRA Salt Crus Aquatic I Hydrogei Oxidized Presence Recent Iu	ained Leave A 1, 2, 4A, a st (B11) nvertebrate n Sulfide Oo Rhizosphe e of Reduce	es (B9) ( and 4B) s (B13) dor (C1) res along ed Iron (C on in Till	except g Living Ro C4) ed Soils (C	<u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u>	dary Indicators (2 or more ater-Stained Leaves (B9) 4A, and 4B) ainage Patterns (B10) y-Season Water Table (f aturation Visible on Aerial comorphic Position (D2) hallow Aquitard (D3)	(MLRA 1, 2 C2) Imagery (C
Remarks: IYDROLOO Wetland Hyc Primary Indic Surface X High Wa X Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	GY frology Indicators: cators (minimum of c Water (A1) ter Table (A2) on (A3) arks (B1) th Deposits (B2) posits (B3) at or Crust (B4)	one requir	Water-St     MLRA     Salt Crus     Aquatic I     Aquatic I     Youry     Oxidized     Presence     Recent In     Stunted	ained Leave A 1, 2, 4A, a st (B11) nvertebrate n Sulfide Oo Rhizosphe e of Reduce ron Reducti	es (B9) ( and 4B) s (B13) dor (C1) res along ed Iron (C on in Till Plants (	except g Living Ro C4) ed Soils (C	Secon Wi Dr Dr Dr Sr pots (C3) Gr St C6) FA A) Ra	dary Indicators (2 or more ater-Stained Leaves (B9) 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C aturation Visible on Aerial seomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5)	(MLRA 1, 2 C2) Imagery (C9 .RR A)
Remarks: IYDROLOO Wetland Hyc Primary Indic Surface X High Wa X Saturatio Water M Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial	one requir	Water-St     MLRA     Salt Crus     Aquatic I     Aquatic I     Aquatic I     Oxidized     Presence     Recent In     Stunted 0     Stoned 0     Stoned 0	ained Leave A 1, 2, 4A, a st (B11) nvertebrate in Sulfide Oo Rhizosphe e of Reduce ron Reducti or Stressed	es (B9) ( and 4B) s (B13) dor (C1) res along ed Iron (C on in Till Plants (	except g Living Ro C4) ed Soils (C	Secon Wi Dr Dr Dr Sr pots (C3) Gr St C6) FA A) Ra	dary Indicators (2 or more ater-Stained Leaves (B9) 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C aturation Visible on Aerial ecomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (L	(MLRA 1, 2 C2) Imagery (C .RR A)
Remarks: IYDROLOO Wetland Hyo Primary Indic Surface X. High Wa X. High Wa X. Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concav	one requir	Water-St     MLRA     Salt Crus     Aquatic I     Aquatic I     Aquatic I     Oxidized     Presence     Recent In     Stunted 0     Stoned 0     Stoned 0	ained Leave A 1, 2, 4A, a st (B11) nvertebrate in Sulfide Oo Rhizosphe e of Reduce ron Reducti or Stressed	es (B9) ( and 4B) s (B13) dor (C1) res along ed Iron (C on in Till Plants (	except g Living Ro C4) ed Soils (C	Secon Wi Dr Dr Dr Sr pots (C3) Gr St C6) FA A) Ra	dary Indicators (2 or more ater-Stained Leaves (B9) 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C aturation Visible on Aerial ecomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (L	(MLRA 1, 2 C2) Imagery (C9 .RR A)
Remarks: IYDROLOO Wetland Hyc Primary Indic Surface Surface Aligh Wa Saturatio Water M Water M Sedimer Drift Dep Aligal Ma Iron Dep Surface Inundatio Sparsely Field Obser	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) arks (B3) to Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concav vations:	one requir Imagery ( e Surface	Water-St MLRA     Salt Crus     Aquatic I     Aquatic I     Aquitic I     Oxidized     Presence     Recent In     Stunted (     B7) Other (E)     (B8)	ained Leave A 1, 2, 4A, a st (B11) nvertebrate in Sulfide Oo Rhizosphe e of Reduce ron Reducti or Stressed xplain in Re	es (B9) ( and 4B) s (B13) dor (C1) res along ed Iron (C on in Till Plants (	except g Living Ro C4) ed Soils (C	Secon Wi Dr Dr Dr Sr pots (C3) Gr St C6) FA A) Ra	dary Indicators (2 or more ater-Stained Leaves (B9) 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C aturation Visible on Aerial ecomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (L	(MLRA 1, 2 C2) Imagery (C9 .RR A)
Remarks: IYDROLOO Wetland Hyc Primary Indic Surface X High Wa X Saturatio Water M Water M Water M Quarker Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obsert Surface Water	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) arks (B1) to Deposits (B2) posits (B3) bit or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concav vations: er Present?	Imagery ( e Surface	Water-St MLRA Salt Crus Aquatic I Hydrogei Oxidized Presence Recent In Stunted B7) Other (E (B8) No \_ Depth (i)	ained Leav <b>A 1</b> , <b>2</b> , <b>4A</b> , <b>a</b> st (B11) nvertebrate in Sulfide Or Rhizosphe e of Reduce or Reducet or Stressed xplain in Re nches):	es (B9) ( and 4B) s (B13) dor (C1) res along ed Iron (C on in Till Plants (	except g Living Ro C4) ed Soils (C	Secon Wi Dr Dr Dr Sr pots (C3) Gr St C6) FA A) Ra	dary Indicators (2 or more ater-Stained Leaves (B9) 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C aturation Visible on Aerial ecomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (L	(MLRA 1, 2 C2) Imagery (C9 .RR A)
Remarks: IYDROLOO Wetland Hyc Primary Indic Surface X High Wa X Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Vater Table	GY drology Indicators: ators (minimum of c Water (A1) ter Table (A2) on (A3) arks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present?	Imagery ( e Surface /es	Water-St MLRA Salt Crus Aquatic I Aquatic I Hydroger Oxidized Presence Recent In Stunted B7) Other (E (B8) No Depth (i No Depth (i	ained Leave <b>A 1, 2, 4A,</b> a st (B11) nvertebrate n Sufide Ot Rhizosphe e of Reduce or Reducetion or Stressed xplain in Re- nches):	es (B9) ( and 4B) s (B13) dor (C1) res along do Iron (C on in Till Plants ( emarks)	except g Living Ro 24) ed Soils (C D1) (LRR	Secon Wi Dr Dr Dr Se poots (C3) Ge Ge (C6) FA (A) Re	dary Indicators (2 or more ater-Stained Leaves (B9) 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C aturation Visible on Aerial ecomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (L	(MLRA 1, 2 C2) Imagery (C9 .RR A)
Remarks: IYDROLO Wetland Hyc Primary Indic Surface X. High Wa X. High Wa X. Saturatio Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water X. High Wa Saturation P Saturation P	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concav vations: er Present? Present? Mainton (Mainton) Present? Mainton (Mainton) Present?	Imagery ( e Surface res res res	Water-St     MLRA     Salt Crus     Aquatic I     Aqu	ained Leav <b>A 1, 2, 4A, </b> a st (B11) nvertebrate n Sulfide Oc Rhizosphe e of Reduce or Reduce or Stressed xplain in Re nches): nches):	es (B9) ( and 4B) s (B13) dor (C1) res along ed Iron (C on in Till Plants ( emarks)	except g Living Ro C4) ed Soils (C D1) (LRR	Secon     Secon     Secon     Wi     Dr     Dr     Dr     Ss     St     St     C6)    FA     A)    R     Fr	dary Indicators (2 or more ater-Stained Leaves (B9) <b>4A, and 4B)</b> ainage Patterns (B10) y-Season Water Table (0) aturation Visible on Aerial eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (L ost-Heave Hummocks (D	(MLRA 1, 2 22) Imagery (C RR A) 27)
Remarks: IYDROLO Wetland Hyc Primary Indic Surface X. High Wa X. High Wa X. Saturatio Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water X. High Wa Saturation P Saturation P	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concav vations: er Present? Present? Mainton (Mainton) Present? Mainton (Mainton) Present?	Imagery ( e Surface res res res	Water-St MLRA Salt Crus Aquatic I Aquatic I Hydroger Oxidized Presence Recent In Stunted B7) Other (E (B8) No Depth (i No Depth (i	ained Leav <b>A 1, 2, 4A, </b> a st (B11) nvertebrate n Sulfide Oc Rhizosphe e of Reduce or Reduce or Stressed xplain in Re nches): nches):	es (B9) ( and 4B) s (B13) dor (C1) res along ed Iron (C on in Till Plants ( emarks)	except g Living Ro C4) ed Soils (C D1) (LRR	Secon     Secon     Secon     Wi     Dr     Dr     Dr     Ss     St     St     C6)    FA     A)    R     Fr	dary Indicators (2 or more ater-Stained Leaves (B9) <b>4A, and 4B)</b> ainage Patterns (B10) y-Season Water Table (0) aturation Visible on Aerial eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (L ost-Heave Hummocks (D	(MLRA 1, 2 22) Imagery (C RR A) 27)
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Understand       State:       Lat       Lat <t< th=""><th>Project/Site: Paretrack Pond</th><th>dim to the second</th><th>City/County: Posso</th><th>11 Cernte Sampling Date: 0000712</th></t<>	Project/Site: Paretrack Pond	dim to the second	City/County: Posso	11 Cernte Sampling Date: 0000712
Non-stiglator(s):	Applicant/Owner fish hability and for	rk - Paul	Relf	State: MT Sampling Point: 2714
Landom (hillslope, turnee etc): the more than the standard of				
Subregion (LRR):       Code:       Min. Panol field Lat:       Using the stable in the intervised of the time of year? Yes				
Soit Map Unit Name: Superior for this time dyear? Yes	Landform (nillslope, terrace, etc.): Revenue	Afrida M	o II. 1 22 JO2"	Ulars 120/14 17 22 14 Datum la 68 9
Are dimatic / hydrologic conditions on the site typical for this time of year? Yes No (if no, explain in Remarks.)   Are Vegetation				
Are Vegetation				
Are Vegetation Solt or Hydrology naturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.         Hydrophylic Vegetation Present?       Yes No         Is the Sampled Area       within a Wotland?       Yes No         Wetland Hydrology Present?       Yes No       Is the Sampled Area       within a Wotland?         YEGETATION - Use scientific names of plants.       Openionance Test worksheet:       Number of Dominant Indicator       % Cover.         1				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc         Hydrophylic Vegetation Present?       Yes       No         Yets       No       is the Sampled Area       within a Wetland?       Yes       No         Remarks:       Yes       No       within a Wetland?       Yes       No       X         Remarks:       Yes       No       within a Wetland?       Yes       No       X         VEGETATION - Use scientific names of plants.       Mosolute       Dominant Indicator       Moment of Dominant Species       (A)         1	Are Vegetation <u>No</u> , Soil <u>NO</u> , or Hydrology <u></u>	significantly	disturbed? Are	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc         Hydrophylic Vegetation Present?       Yes       No         Yets       No       is the Sampled Area       within a Wetland?       Yes       No         Wetland Hydrology Present?       Yes       No       within a Wetland?       Yes       No         Remarks:       Mo       within a Wetland?       Yes       No       X         Remarks:       Mo       Sectors       Sectors       Sectors       Sectors         Interstand       Providence Index worksheet:       Number of Dominant Species       (A)         1       Total Number of Dominant Species       (A)         2       Saling/Shub Stratum       (Plot size:       SOGA       (A)         3       Secies       S1       Secies       (A)         2       Saling/Shub Stratum       (Plot size:       SOGA       (A)       (A)         3       Secies       S1       Secies       S1       S         4       Secies       S1       S       S       (A)       (A)         2       Saling/Shub Stratum       (Plot size:       SASA       (A)       (A)       (A)         2       S <td>Are Vegetation <u>NO</u>, Soil <u>NO</u>, or Hydrology <u>r</u></td> <td>naturally pro</td> <td>blematic? (If ne</td> <td></td>	Are Vegetation <u>NO</u> , Soil <u>NO</u> , or Hydrology <u>r</u>	naturally pro	blematic? (If ne	
Hydric Goil Present?       Yes       No       Is the Sampled Area within a Wetland?       Yes       No       X         Wetland Hydrology Present?       Yes       No       Wetland?       Yes       No       X         Remarks:       Area       Wetland?       Yes       No       X         VEGETATION - Use scientific names of plants.       Opportunated Status       Opportunated Status       Status       Number of Dominant Species       (A)         1	SUMMARY OF FINDINGS – Attach site	map showing	sampling point I	ocations, transects, important features, etc
Hydro Sol Present?       Yes       No       within a Wetland?       Yes       No       X         Remarks of this size of status       No       Absolute       Commance Test worksheet:       No       X         Image: Status       Absolute       Dominant Indicator       Moment Indicator       Nome of Dominant Species       (A)         1       X Correr       Species Across All Strats:       (B)       Percent of Dominant Species       (A)         2       Total Number of Dominant Species       That Are OBL, FACW, or FAC:       (A)       (A)         3       Species Across All Strats:       (B)       Percent of Dominant Species       (A)         1       Species Across All Strats:       (B)       Percent of Dominant Species       (A)         2       Sabing/Shub Stratum       (Plot size: Shall Strats)       (B)       Percent of Dominant Species       (A)         1       Species Across All Strats:       (B)       Percent of Dominant Species       (A)       (A)         2       Sabing/Shub Stratum       (Plot size: Shall Strats)       (B)       Percent of Dominant Species       (A)         1       Species       X1 =       FAC Species       X2 =       FAC Species       X3 =       Secies       X3 =       Secies       X4 =	Hydrophytic Vegetation Present? Yes	No X		
Wetland hydroogy reserver.       res       No				d Area
Area       Absolute       Dominant       Indicator         Image: Stratum       (Plot size:       Stratum       (Plot size:       (A)         1	, ,,		The second second second	the second se
VEGETATION – Use scientific names of plants.         Image: Second S	Remarks: on this side of dr	tch netla	nd externs	cuppingunately 5 test in
Iree Stratum       (Plot size:       Stratum       Absolute       Dominant       Indicator       Number of Dominant       Species       (A)         1.	Oreas than one susmit i	JUSEI		
Iree Stratum       (Plot size:       54300       Absolute % Cover       Dominant Indicator % Cover       Dominance Test worksheet:         1.		nlante	and the second second	the set of the set of the set of the
Iree Stratum       (Plot size: 5x30C4)       % Cover       Species2       Status       Number of Dominant Species       (A)         1	EGETATION - Ose scientine names of		Dominant Indicator	Dominance Test worksheet:
1.       That Are OBL, FACW, or FAC:       (A)         2.       Total Number of Dominant       (B)         4.       D = Total Cover       Prevalence Index worksheet:       (A)         1.       D = Total Cover       Prevalence Index worksheet:       (A)         2.       D = Total Cover       Prevalence Index worksheet:       (A)         3.       D = Total Cover       Prevalence Index worksheet:       (A)         2.       D = Total Cover       Multiply by:       (B)         3.       D = Total Cover       FAC species       x 1 =         FAC species       x 3 =       FAC species       x 4 =         1.       D = Total Cover       (A)       (B)         Prevalence Index is 2.       (A)       (B)       (B)         2.       D = Total Cover       (A)       (A)       (B)         2.       D = Total Cover       (A)       (B)       (B)         2.       D = Total Cover       (A)       (B)       (B)         2.       D = Total Cover       (A)       (B)       (B)         3.       D = Total Cover       (A)       (B)       (C)         4.       D = Total Cover       (A)       (B)       (C)       (C)	Tree Stratum (Plot size: 5×30F+_)	% Cover		
3.	1			
4.       O       = Total Cover       Percent of Dominant Species That Are OBL, FACW, or FAC:       (AB)         1.       Total % Cover of:       Multiply by:         2.       Total % Cover of:       Multiply by:         3.       Total % Cover of:       Multiply by:         4.       Total % Cover of:       Multiply by:         5.       Total % Cover of:       Multiply by:         6.       Total Cover       FACU species       X = =         1.       Bornes       Y = Total Cover       FACU species       X = =         1.       Bornes       Y = Total Cover       FACU species       X = =         1.       Bornes       Y = Total Cover       UPL species       X = =       S = =         2.       Sectors       Y = =       Y = =       Y = =       Y = =         3.       Y = Total Cover       UPL species       X = =       Y = =       Y = =         2.       Y = Total Cover       UPL species       Y = =       Y =	2			Total Number of Dominant
Sapling/Shrub Stratum (Plot size: Sx St A)       0       = Total Cover       That Are OBL, FACW, or FAC:	3			
Saping/Shub Stratum (Plot size: 3x30 A)       Intervention (Multiply by: (Multiply by: OBL species)       Image: All of the control of th	4	C2		
1.	Sapling/Shrub Stratum (Plot size: 5×30F4	)	= Total Cover	
2.				and the second
3.				
4.	3			
5.       0       = Total Cover         Herb Stratum (Plot size: SX SF4)       0       = Total Cover         1.       90       1         2.       90       1         3.       90       1         4.       90       1         5.       90       1         6.       90       1         7.       90       1         8.       90       1         9.       90       1         9.       1       1         9.       1       1         9.       1       1         9.       1       1         9.       1       1         9.       1       1         9.       1       1         9.       1       1         9.       1       1         10.       1       1         11.       90       = Total Cover         Woody Vine Stratum (Plot size: Statum (Plot size) Statum (Plot size) Statum (Plot size (Pl	4			A CONTRACTOR OF
Herb Stratum (Plot size:	5	-		
1. Broms mems       90       Y       OPL       Column Totals:O(A)SS(B)         2	Harb Stratum (Plat size: SX SFL)	0	= Total Cover	00 1105
2.       Prevalence Index = B/A =		90	V UPL	Column Totals: 90 (A) 450 (B)
3.				Prevalence Index = B/A =
5.				
6.	4			1 - Rapid Test for Hydrophytic Vegetation
7.	5			2 - Dominance Test is >50%
8	6	A PROMO	the standay	3 - Prevalence Index is ≤3.0 <sup>1</sup>
0.	7		10000 1000 1000 1000	
9.				
10.				
Woody Vine Stratum (Plot size: 5×30A)     90 = Total Cover     be present, unless disturbed or problematic.       1.			T.11	
Woody Vine Stratum (Plot size:	11	90	= Total Cover	
1.	Woody Vine Stratum (Plot size: 5×30A)	-12		april and a second
% Bare Ground in Herb Stratum     O     = Total Cover     Present?     Yes     No       % Bare Ground in Herb Stratum     O     = Total Cover     Present?     Yes     No       Remarks: packets     OF     lifter     Prot     Caver     Qboot     B76     This Sidencoff     Ortch				
"Bare Ground in Herb Stratum O = Total Cover Remarks: packets of litter that cover about 1876. This side work ofthis	2			Present? Yes No X
Remarks: packets of litter that cover about 1876. This side work ofthis is	W Para Cround in Harb Stratum	0	= Total Cover	
		Alant	and almost a	27. The sale of which it
		WORT Colu	1 TUCCH I	STO MIS SICENDE OTON IS

NO.

Profile Descript	tion: (Describe	to the dep	th needed to docu	iment the i	indicator	or confirm	n the absenc	e of indicate	ors.)	
Depth	Matrix			ox Feature						
(inches)	Color (moist)		Color (moist)	%	_Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
2-11 1	OHR 21	100	1.11.1.4				clay logi	M		
	04R 2/1	70	51R46	5	C	M	clay Your	<u> </u>	2.2.2.2.2	and the second
l	04R4/2	25	and the second second				0			
	ALCON MARKED						10 201		the second second	diam'r a brite a bri
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A	and Sectors	Contraction of		5				NOT THE STATE		
		100		14 .				out to all		Construction of
	been between the		where we are a set of the	8		and the second			instruction of	0
	ontrotion D-Don	lation DM-	Deduced Matrix C		d as Casta	d Cand C	21 c	action: DI -	Dere Lining N	Antrix
			Reduced Matrix, C LRRs, unless othe			d Sand G			Pore Lining, Notes Notes Pore Lining, Notes No	
		able to all			eu.)					10 30115 .
Histosol (A1 Histic Epipe	A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O		Sandy Redox Stripped Matrix					m Muck (A1 d Parent Ma		
Black Histic			Loamy Mucky		1) (excent				ark Surface (T	F12)
Hydrogen S			Loamy Gleyed			MILINA I)		ner (Explain		1 12)
	elow Dark Surfac	e (A11)	Depleted Matri		,		<u> </u>	(	(in ternante)	
	Surface (A12)	x	Redox Dark Si				<sup>3</sup> Indicat	ors of hydro	phytic vegetati	on and
	ky Mineral (S1)		Depleted Dark		7)				y must be pre	
Sandy Gleye	ed Matrix (S4)		Redox Depres				unle	ss disturbed	or problematio	<b>b.</b>
Restrictive Laye	er (if present):	and the second								
Туре:		100 July 100 July 100								
Depth (inches										
emarks: 009 12 mc	37. Defines of	nttur Soil	or a surface	hyan	C S	- 11 <del>-</del>		1 Present? table	Yes X	No
YDROLOGY	logy Indicators:	Soil	or a		2	- 1106	Warber	table	within	\
YDROLOGY Vetland Hydrol	logy Indicators:	Soil	SVR &	ly)		•	- Warber Seco	table	within tors (2 or more	e required)
Verland Hydrol	logy Indicators: rs (minimum of o ter (A1)	Soil				•	- Warber Seco	table ondary Indica Water-Staine	tors (2 or more d Leaves (B9)	e required)
Verland Hydrol Vorland Hydrol rimary Indicator Surface Wat High Water	logy Indicators: rs (minimum of o ter (A1) Table (A2)	Soil	Water-Sta	ly) ained Leave	es (B9) (e)	•		table ondary Indica Water-Staine 4A, and 4	tors (2 or more d Leaves (B9) B)	e required)
Verland Hydrol YDROLOGY Verland Hydrol trimary Indicator Surface Wat High Water Saturation (/	logy Indicators: rs (minimum of o ter (A1) Table (A2) A3)	Soil	Water-Sta MLRA Salt Crust	ly) ained Leave , <b>1, 2, 4A,</b> a t (B11)	es (B9) (e) and 4B)	•	Secc	ndary Indica Water-Staine 4A, and 4 Drainage Pal	tors (2 or mor d Leaves (B9) B) terns (B10)	e required) (MLRA 1, 2,
Verland Hydrol Market Market Verland Hydrol Trimary Indicator Surface Wat High Water Saturation (/ Water Marks	logy Indicators: rs (minimum of o ter (A1) Table (A2) A3) s (B1)	Soil	Water-Sta MLRA Salt Crust Aquatic Ir	ly) ained Leave t (B11) hvertebrate	es (B9) (ø) ind 4B) s (B13)	•		ndary Indica Water-Staine 4A, and 4 Drainage Pai	tors (2 or morn d Leaves (B9) B) terns (B10) Nater Table (C	<u>e required)</u> (MLRA 1, 2, 22)
Verland Hydrol YDROLOGY Verland Hydrol Trimary Indicator Surface Wat High Water Saturation (/ Water Marks Sediment Da	logy Indicators: rs (minimum of o ter (A1) Table (A2) A3) s (B1) eposits (B2)	Soil	Water-Sta     MLRA     Salt Crusi     Aquatic Ir     Hydrogen	ly) ained Leave 1, 2, 4A, a t (B11) nvertebrate s Sulfide Oc	es (B9) (e) ind <b>4B)</b> s (B13) ior (C1)	ccept		ndary Indica Water-Staine 4A, and 4 Drainage Pai Dry-Season Vi Saturation Vi	tors (2 or morn d Leaves (B9) B) terns (B10) Water Table (C sible on Aerial	e required) (MLRA 1, 2,
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westigator(s):				
and/orm (hillslope, terrace, etc.):       Local relief (concave, convex, none)       Slope (%): D         subtree (in LRR):       C Work (Mark Mark Mark Mark Mark Mark Mark Mark				
bashegion (LRR): £-lock, 14h, Bana fan hat, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10				
boil Map Unit Name: Sol				
<pre>re climate / hydrologic conditions on the site typical for this time of year? Yes No (if no, explain in Remarks.) re Vegetation Soil or Hydrology influentity disturbed? Are "Normal Circumstances" present? Yes No re Vegetation Soil or Hydrology naturally problematic? (if needed, explain any answers in Remarks.) SUMMARY OF FINDINOS - Attach site map showing sampling point locations, transects, important features, etc Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland # Or Area Wetland Hydrology Present? Yes No Is the Sampled Area within a Wetland # Or Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Yes No</pre>				
re Vegetation No.       Soil No.       or Hydrology No.       significantly disturbed?       Are "Normal Circumstances" present? Yes No.         re Vegetation No.       Soil No.       or Hydrology No.       naturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.         Hydrophytic Vegetation Present?       Yes       No.       Is the Sampled Area         Wetland Hydrology Present?       Yes       No.       Is the Sampled Area         Wetland Hydrology Present?       Yes       No.       Is the Sampled Area         Wetland Hydrology Present?       Yes       No.       Is the Sampled Area         Wetland Hydrology Present?       Yes       No.       Is the Sampled Area         Wetland Hydrology Present?       Yes       No.       Is the Sampled Area         Yes       No.       X       Wetland Hydrology Present?       No.         Zegetation Present?       Yes       No.       X       No.       X         Zegetation Present?       Yes       No.       X       No.       X         Zegetation Hydrology Present?       Yes       No.       X       Area       C       Area         Zegetation Indicators       Secorea			,	
ve Vegetation A				
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.         Hydrophylic Vegetation Present?       Yes       No         Hydric Soll Present?       Yes       No       is the Sampled Area within a Wetland Hydrology Present?       Yes       No         Remarks:       Data Mathematic Samples       No       is the Sampled Area within a Wetland Hydrology Present?       Yes       No       Xes         Remarks:       Data Mathematic Samples       No       Xes       No       Xes       No         Remarks:       Data Mathematic Samples       Absolute       Dominant Indicator       Nominance Test worksheet:       No         1       Xes       Absolute       Dominant Indicator       Nominance Test worksheet:       No         2       Saming/Shub Stratum       (Plot size:       Sage       Imathematic Samples       Imathematic Samples       Imathematic Samples         1       Samples       Samples       Samples       Samples       Imathematic				
Hydrophytic Vegetation Present?       Yes       No         Hydrophytic Vegetation Present?       Yes       No         Wetland Hydrology Present?       Yes       No         Remarks:       Mo       Mode and the state of the state	Are Vegetation <u>No.</u> , Soil <u>NO</u> , or Hydrology <u>N</u>	a naturally problem	matic? (If ne	eeded, explain any answers in Remarks.)
Hydro Sol Present? Yes No   Wetland Hydrology Present? Yes No   Wetland Hydrology Present? Yes No <b>EGENTATION - Use scientific names of plants.</b> Tree Stratum (Plot size: Yes <b>Abodute</b> Dominant Indicator   1. Yes <b>Center of Dominant Species</b> 1. Yes <b>Commant Indicator</b> 2. Abodute <b>Dominant Indicator</b> 1. Yes <b>Center of Dominant Species</b> 1. Yes <b>Commant Indicator</b> 2. Abodute <b>Dominant Indicator</b> 3. Abodute <b>Dominant Indicator Total Cover Total Cover Frequence of Dominant Species Total Scover of Multiply by: OBL Species X 1 = FACU Species X 1 = FACU Species X 2 = Contract Cover Herb Stratum (Plot size: System Stratum Plots Species X 4 = Del Total Cover Hydrophytic Vegetation Indicators: 1 Cover Stratum Cover Stratu</b>	SUMMARY OF FINDINGS - Attach site	map showing sa	mpling point le	ocations, transects, important features, etc
Hydro by resent? Yes No   Wetland Hydrology Present? Yes No   Remarks: ponched is a family of the second of plants. <b>//EGETATION – Use scientific names of plants. //EGETATION – Use scientific names of plants. //</b>	Hydrophytic Vegetation Present? Yes	No		A SALE OF ME AND A SALE OF A SALE OF A SALE OF A
Neural hybridge result       No       Here       Provide that it has a start of the first			Is the Sampled	I Area
Actions.         VEGETATION - Use scientific names of plants.         Tree Stratum (Plot size: 9430 A)       Absolute Dominant Indicator % Cover Species? Status         1.       Species? Status         3.       Species? Status         4.       Species? Status         5.       Species 2.53.0 A)         6.       Status         7.       Species 2.54.0 A)         7.       Status         7.       Species 2.54.0 A)         7.       Species 2.54.0 A) </td <td></td> <td></td> <td>and a state of the state of the</td> <td></td>			and a state of the state of the	
Actions.         VEGETATION - Use scientific names of plants.         Tree Stratum (Plot size: 9430 A)       Absolute Dominant Indicator % Cover Species? Status         1.       Species? Status         3.       Species? Status         4.       Species? Status         5.       Species 2.53.0 A)         6.       Status         7.       Species 2.54.0 A)         7.       Status         7.       Species 2.54.0 A)         7.       Species 2.54.0 A) </td <td>Remarks: ponden is mored</td> <td>by bern</td> <td>that folk</td> <td>is astell channel. Dus addies</td>	Remarks: ponden is mored	by bern	that folk	is astell channel. Dus addies
Absolute % Cover       Dominant Indicator % Cover       Dominant Indicator Species7       Dominant Species That Are OBL, FACW, or FAC:       Q       (A)         1.	as RTIS.	ONG CONTEN	nee train	in the same or not isat
Absolute Species       Dominant Indicator Species       Dominant Species Italus         1.	EGETATION _ Use scientific names of	nlante	Contradius and	Contract 12 . pitch control over durit
Tree Stratum (Plot size:	EGETATION - Use scientific hames of		ominant Indicator	Dominance Test worksheet
1. That Are OBL, FACW, or FAC: (A)   2. Total Number of Dominant 2   3. = Total Cover   4. = Total Cover   3. = Total Cover   1. = Total Cover   2. = Total Cover   3. = Total Cover   4. = Total Cover   1. = Total Cover   1. Description   2. Description   3. = Total Cover   1. Description   3. = Total Cover   1. Description   2. Description   3. = Total Cover   1. Description   3. = Total Cover   1. Description   2. Description   3. = Total Cover   3. = Total Cover   1. Description   3. = Total Cover   1. Description   3. = Total Cover   1. = Total Cover <td>Tree Stratum (Plot size: Sx30 A)</td> <td><u>% Cover</u> Sr</td> <td></td> <td></td>	Tree Stratum (Plot size: Sx30 A)	<u>% Cover</u> Sr		
3. Species Across AI Strata: (B)   4. Species Across AI Strata: (C)   Sapling/Shrub Stratum (Plot size: Social Across AI Strata: (A/B)   1. Colored Index worksheet: (A/B)   2. Colored Index worksheet: (A/B)   7. Colored Index worksheet: (A/B)   1. Colored Index worksheet: (A/B)   7. Colored Index worksheet: (A/B)   9. Colored Index worksheet: (A/B)   1. Colored Index worksheet: (A/B)   7. Colored Index worksheet: (A/B)   9. Colored Index worksheet: (A/B)   1. Colored Index worksheet: (A/B)   7. Colored Index worksheet: (B)   9. Colored Index worksheet: (A/B)   1. Colored Index worksheet: (A/B)   7. Colored Index In	1			That Are OBL, FACW, or FAC: (A)
4.				Total Number of Dominant
Sapling/Shrub Stratum (Plot size: 5×304)       = Total Cover       That Are OBL, FACW, or FAC: (A/B)         1.				Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size: South)       Prevalence Index worksheet:         1.       Total % Cover of:       Multiply by:         2.       OBL species       x 1 =         3.       FACW species       x 2 =         5.       FAC species       x 3 =         1.       Prevalence Index worksheet:       Total % Cover of:       Multiply by:         0       = Total Cover       FAC species       x 3 =         Herb Stratum (Plot size: Social)       0       = Total Cover       FAC species       x 4 =         1.       Oncomposition       35       Y       FAC species       x 4 =         2.       Oractions       35       Y       FAC species       x 4 =         1.       Oractions       35       Y       FAC species       x 4 =         2.       Oractions       35       Y       FAC species       x 4 =         1.       Oractions       35       Y       FAC species       x 4 =         2.       Oractions       35       Y       FAC species       x 4 =         1.       Oractions       35       Y       FAC species       x 4 =         1.       Oractions       35       Y       FAC species       x 5		6) -1	Tatal Cause	
1	Sapling/Shrub Stratum (Plot size: 5×30A	)= [	otal Cover	
2.       OBL species       x1 =         3.       Secies       x2 =         4.       Secies       x3 =         5.       Secies       x3 =         1.       Oracle one       SS       Y         2.       Oracle one       SS       Y         3.       Y       Acc       Column Totals:       (A)       (B)         2.       Oracle one       SS       Y       Acc       Column Totals:       (A)       (B)         2.       Oracle one       SS       Y       Acc       Column Totals:       (A)       (B)         2.       Oracle one       SS       Y       Acc       Column Totals:       (A)       (B)         2.       Oracle one       SS       Y       Acc       Column Totals:       (A)       (B)         2.       Oracle one       SS       Y       Acc       Column Totals:       (A)       (B)         3.       Prevalence Index = B/A =       Hydrophytic Vegetation Indicators:       1 - Rapid Test for Hydrophytic Vegetation       (S)       3 - Prevalence Index is \$3.0'       -       -       -       5 - Wetland Non-Vascular Plants'       -       -       -       -       -       -       -<				
3.	2			
4.   5.   1.   1.   1.   2.   2.   2.   3.   4.   5.   3.   4.   5.   6.   7.   9.   10.   11.   10.   11.   11.   12.   13.   4.   5.   6.   7.   9.   10.   11.   11.   12.   13.   14.   15.   16.   17.   18.   19.   10.   11.   11.   11.   12.   13.   14.   15.   16.   17.   18.   19.   10.   11.   11.   11.   12.   13.   14.   15.   15.   16.   17.   18.   19.   10.   11.   11.   12.   13.   14.   15.   16.   17.   18.   19.   11.   11.   11.   12.   13.   14.   15.   16.   17.   17. <t< td=""><td>3</td><td></td><td></td><td></td></t<>	3			
O       = Total Cover         Herb Stratum (Plot size: SYSA)       0         1. One on materia       35         2. Dress arctices       38         3.       38         4.       38         5.       1. Rapid Test for Hydrophytic Vegetation Indicators:         1. Prevalence Index = B/A =       1. Rapid Test for Hydrophytic Vegetation         5.       1. Rapid Test for Hydrophytic Vegetation         5.       1. Rapid Test for Hydrophytic Vegetation         7.       3. Prevalence Index is \$3.0'         8.       9.         9.       4. Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)         9.       5. Wetland Non-Vascular Plants'         9.       5. Wetland Non-Vascular Plants'         9.       9.         10.       1.         11.       1.         22.       D = Total Cover         14.       Morphytic Vegetation' (Explain)         11.       1.         2.       D = Total Cover         4.       Mydrophytic Vegetation'         1.       0         2.       0         3.       1.         2.       0         3.       1.				
Herb Stratum (Plot size: 5×54)   1. Onlew 33   2. Jonews arcticus   3	5	0 -1	Tatal Cauar	FACU species x 4 =
2.	Herb Stratum (Plot size: 5~54)	=	otal Cover	UPL species x 5 =
3.       Hydrophytic Vegetation Indicators:         4.       Hydrophytic Vegetation Indicators:         5.       1 - Rapid Test for Hydrophytic Vegetation         6.       3 - Prevalence Index is \$30°         7.       4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         9.       5 - Wetland Non-Vascular Plants <sup>1</sup> 10.       - 5 - Wetland Non-Vascular Plants <sup>1</sup> 11.       - D = Total Cover         Woody Vine Stratum (Plot size: 5x 30 ft )       - Total Cover         Wegetation       Yes No         Wegetation       Yes No         Wegetation       Yes No	1. Phileum pratense	35	Y FAC	Column Totals: (A) (B)
4.		35	Y FACW	Prevalence Index = B/A =
5	3			Hydrophytic Vegetation Indicators:
6.	4			
7.				
8.				
9.				
10				
11.	1723			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:	10		and the second second	
1.		- T	otal Cover	be present, unless disturbed or problematic.
2.	11	10 - 11		the state of the s
% Bare Ground in Herb Stratum	11	<u></u> = 1	and the second second	
% Bare Ground in Herb Stratum	11(Plot size: <u>5x3の年</u> ) 1			Vegetation
Remarks: ODLEO-plot, litter covers 3070 of water viet	11(Plot size: <u>5x3の年</u> ) 1		otal Cover	Vegetation
00 61 - Leg community	11		otal Cover	Vegetation

Tome Dese	ription: (Describe t	to the depth	needed to docu	ment the in	ndicator o	or confirm	n the absence of	of indicate	ors.)	
Depth	Matrix Color (moist)	%	Red Color (moist)	ox Features %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
(inches)	104R2/1		Color (moist)		Туре	LUC	Sandy Joour		Remarks	L. Frankinski (Berner
			34				canton .	-		
3-12	104R2/1		YR 3/4			M	salay loan		-	
	and the second		L provi					- I		
			-							and the second
	1. Service and	design a	10	_		_		12111		Mark Carlos and
	A DAY TELEVIL			0.0						
	Line and Provide		The state			_				
to	s. important for	<u></u>	in location	<u>n salla</u> r	1102 1211	10101		N. H.		
	oncentration, D=Depl					d Sand G			Pore Lining, Molematic Hydr	
	ndicators: (Applica	able to all LR			su.)					00115 .
Histosol	and the second se		_ Sandy Redox					Muck (A1		
	bipedon (A2)	-	Stripped Matrix		) (020000	MIDA			terial (TF2) ark Surface (	(F12)
Black His		1.1	Loamy Mucky			MLRA 1)			in Remarks)	11 (2)
_ , .	n Sulfide (A4)	- (011)	<ul> <li>Loamy Gleyed</li> <li>Depleted Matr</li> </ul>		,		Othe	(Explain	n Nemarks)	
	Below Dark Surface		-				<sup>3</sup> Indicator	e of hydro	ohytic vegetat	ion and
	ark Surface (A12)	2	Redox Dark S		7)			-	y must be pre	
	lucky Mineral (S1) ileyed Matrix (S4)	See Lond at	<ul> <li>Depleted Dark</li> <li>Redox Depres</li> </ul>		")				or problemati	
	ayer (if present):	and the set of	_ redux Depres	310113 (1 0)				ulotanoou		
		fill/colo	ble							
Depth (inc	(hes): 2	in the second	ACRIMATI 1				Hydric Soil I	Present?	Yes K	No
Remarks:							-			
P	H 12" T Ledox CI's	a restr dist	ictive met mo	layer	, can lit	npac	tes fi relict	Read	nes	one of
YDROLO	Ht 12" T Ledox CI's GY	a restr drst	rictive met m	layer	, can lit	rey	tes fin relitet	Read	ole	-
A R YDROLO Wetland Hyd	H 12" T Ledox CI's GY drology Indicators:	a restr dist	ictive met hu	layer	, can	rey	tes Fi relict	Read	wes (2 or man	re required)
YDROLO Wetland Hyd	H 12" T Ledox CI's GY drology Indicators: eators (minimum of or	a restr dist			, can	rey			tors (2 or mon	
YDROLO Wetland Hyd Primary Indic	H 12" T Cedox CI's GY drology Indicators: cators (minimum of or Water (A1)	a restr dist	Water-Sta	ained Leave		npac Key		ater-Staine	ed Leaves (B9	re required) ) (MLRA 1, 2,
YDROLO Wetland Hyd Primary Indic	H 12" T Ledox CI's GY drology Indicators: eators (minimum of or	a restr dist	Water-Sta MLRA	ained Leave 1, 2, 4A, a		npac Key	W	ater-Staine 4A, and 4	ed Leaves (B9 I <b>B)</b>	
YDROLO Wetland Hyd Primary Indic	H 12" T Cedox CI's GY drology Indicators: cators (minimum of or Water (A1) ter Table (A2)	a restr dist	Water-Sta MLRA	ained Leave A <b>1, 2, 4A, a</b> t (B11)	nd 4B)	npac rey xcept	W:	ater-Staine 4A, and 4 ainage Pa	ed Leaves (B9 <b>IB)</b> Iterns (B10)	) (MLRA 1, 2,
Primary India Surface High Wa Saturatio	H 12" T Cedox CI's GY drology Indicators: cators (minimum of or Water (A1) ter Table (A2)	a restr dist	Water-Sta MLRA Salt Crus	ained Leave <b>1, 2, 4A, a</b> t (B11) nvertebrates	and 4B) s (B13)	kcept	Wi Dr Dr	ater-Staine 4A, and 4 ainage Pa y-Season	ed Leaves (B9 <b>IB)</b> Iterns (B10) Water Table (	) ( <b>MLRA 1, 2,</b> C2)
YDROLOO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M	H 12" T Cedox CI's GY Grology Indicators: cators (minimum of or Water (A1) ter Table (A2) on (A3)	a restr dtst	Water-Sta MLRA Salt Crus Aquatic II Hydroger	ained Leave A <b>1, 2, 4A, a</b> t (B11) nvertebrates n Sulfide Od	nd 4B) s (B13) lor (C1)		Wi Dr Sa	ater-Staine <b>4A, and 4</b> ainage Pa y-Season turation V	ed Leaves (B9 <b>IB)</b> tterns (B10) Water Table ( sible on Aeria	) ( <b>MLRA 1, 2,</b> C2)
YDROLO Wetland Hyo Primary Indic Surface High Wa Saturatic Water M Sedimer	H 12" T Cedox CI's GY drology Indicators: cators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1)	a restr dist	Water-Sta MLRA Salt Crus Aquatic II Hydroger Oxidized	ained Leave <b>1, 2, 4A, a</b> t (B11) nvertebrates n Sulfide Od Rhizospher	nd 4B) s (B13) lor (C1) res along l	Living Ro	Wi Dr Dr Sa ots (C3) Ge	ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic	ed Leaves (B9 <b>IB)</b> tterns (B10) Water Table ( sible on Aeria Position (D2)	) ( <b>MLRA 1, 2,</b> C2)
YDROLO Wetland Hyo Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep	H 12 <sup>11</sup> T Cedox CI's GY drology Indicators: cators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) ht Deposits (B2)	a restr dist	Water-Sta MLRA Salt Crus Aquatic II Hydroger Oxidized	ained Leave A <b>1, 2, 4A, a</b> t (B11) nvertebrates n Sulfide Od	nd 4B) s (B13) lor (C1) res along l	Living Ro	Wi Dr Sa ots (C3) Ge Sh	ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu	ed Leaves (B9 <b>IB)</b> Itterns (B10) Water Table ( sible on Aeria Position (D2) itard (D3)	) ( <b>MLRA 1, 2,</b> C2)
YDROLO  Vetland Hyo  Primary Indic  Surface High Wa Saturatic Vater M Sedimer Drift Dep Algal Ma	H (2" T Cedox CI's GY drology Indicators: cators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) nt Deposits (B2) posits (B3)	a restr dist	Water-St. MLRA Salt Crus Aquatic lu Hydroger Oxidized Presence Recent lr	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> t (B11) nvertebrates a Sulfide Od Rhizospher e of Reduce on Reductio	nd 4B) s (B13) lor (C1) res along I d Iron (C4 on in Tilleo	Living Roo ) I Soils (Cl	Wa Dr Sa ots (C3) Ge Sh 6) FA	ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu &C-Neutral	ed Leaves (B9 <b>IB)</b> Water Table ( sible on Aeria Position (D2) itard (D3) Test (D5)	) ( <b>MLRA 1, 2,</b> C2) I Imagery (C9)
YDROLO  Vetland Hyc  Primary Indic  Surface High Wa Saturatic Vater M Sedimer Drift Dep Algal Ma Iron Dep	H (2" T Cedox CI's GY drology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) nt Deposits (B2) posits (B3) tt or Crust (B4)	a restr dist	Water-St. MLRA Salt Crus Aquatic lu Hydroger Oxidized Presence Recent lr	ained Leave <b>1, 2, 4A, a</b> t (B11) nvertebrates a Sulfide Od Rhizospher of Reduce	nd 4B) s (B13) lor (C1) res along I d Iron (C4 on in Tilleo	Living Roo ) I Soils (Cl	Wi Dr Sa ots (C3) Ge Sh 6) FA	ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu (C-Neutral ised Ant N	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Mounds (D6) (	) ( <b>MLRA 1, 2,</b> C2) I Imagery (C9) LRR <b>A</b> )
YDROLO  Vetland Hyd  Primary Indic  Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	H 12 <sup>11</sup> T Cedex CI's GY drology Indicators: cators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) arks (B1) th Deposits (B2) posits (B3) th or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In	magery (B7)	Water-St: MLRA Salt Crus Aquatic lu Hydroger Oxidized Presence Recent lr Stunted c Other (Es	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> t (B11) nvertebrates a Sulfide Od Rhizospher e of Reduce on Reductio	nd 4B) s (B13) for (C1) res along I d Iron (C4 on in Tilleo Plants (D	Living Roo ) I Soils (Cl	Wi Dr Sa ots (C3) Ge Sh 6) FA	ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu (C-Neutral ised Ant N	ed Leaves (B9 <b>IB)</b> Water Table ( sible on Aeria Position (D2) itard (D3) Test (D5)	) ( <b>MLRA 1, 2,</b> C2) I Imagery (C9) LRR <b>A</b> )
YDROLO  Vetland Hyd  Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	H (2" T Cedex CI's GY drology Indicators: cators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) arks (B1) th Deposits (B2) posits (B3) th or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In v Vegetated Concave	magery (B7)	Water-St: MLRA Salt Crus Aquatic lu Hydroger Oxidized Presence Recent lr Stunted c Other (Es	ained Leave <b>1, 2, 4A, a</b> <b>t</b> (B11) nvertebrates a Sulfide Od Rhizospher of Reduce on Reduction or Stressed	nd 4B) s (B13) for (C1) res along I d Iron (C4 on in Tilleo Plants (D	Living Roo ) I Soils (Cl	Wi Dr Sa ots (C3) Ge Sh 6) FA	ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu (C-Neutral ised Ant N	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Mounds (D6) (	) ( <b>MLRA 1, 2,</b> C2) I Imagery (C9) LRR <b>A</b> )
YDROLO  Vetland Hyd  Primary Indic Surface High Wa Saturatic Vater M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obsern	H (2" T Cedex CI's GY drology Indicators: eators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) arks (B1) th Deposits (B2) posits (B3) th or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In Vegetated Concave vations:	magery (B7) e Surface (B8	Water-St: MLRA Salt Crus Aquatic lu Hydroger Oxidized Presence Recent lr Stunted c Other (E)	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> t (B11) nvertebrates a Sulfide Od Rhizospher e of Reduces on Reduction or Stressed splain in Res	nd 4B) s (B13) for (C1) res along I d Iron (C4 on in Tilleo Plants (D	Living Roo ) I Soils (Cl	Wi Dr Sa ots (C3) Ge Sh 6) FA	ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu (C-Neutral ised Ant N	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Mounds (D6) (	) ( <b>MLRA 1, 2,</b> C2) I Imagery (C9) LRR <b>A</b> )
YDROLO  Vetland Hyd  Primary Indic Surface High Wa Saturatic Vater M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely  Field Obsern	H (2" T Cedex CI's GY drology Indicators: eators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) arks (B1) th Deposits (B2) posits (B3) th or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In Vegetated Concave vations:	magery (B7) e Surface (B8	Water-St: MLRA Salt Crus Aquatic lu Hydroger Oxidized Presence Recent lr Stunted c Other (Es	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> t (B11) nvertebrates a Sulfide Od Rhizospher e of Reduces on Reduction or Stressed splain in Res	nd 4B) s (B13) for (C1) res along I d Iron (C4 on in Tilleo Plants (D	Living Roo ) I Soils (Cl	Wi Dr Sa ots (C3) Ge Sh 6) FA	ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu (C-Neutral ised Ant N	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Mounds (D6) (	) ( <b>MLRA 1, 2,</b> C2) I Imagery (C9) LRR <b>A</b> )
YDROLO  Vetland Hyd  Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatid Sparsely Field Obsen Surface Wate	H (2" T Cedex CI's GY drology Indicators: eators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) arks (B1) th Deposits (B2) posits (B3) th or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In Vegetated Concave vations: er Present? Ye	magery (B7) e Surface (B8 es No	Water-St: MLRA Salt Crus Aquatic lu Hydroger Oxidized Presence Recent lr Stunted c Other (E)	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> <b>t</b> (B11) nvertebrate: a Sulfide Od Rhizospher of Reduce: on Reduction or Stressed (plain in Re- nches):	nd 4B) s (B13) for (C1) res along I d Iron (C4 on in Tilleo Plants (D	Living Roo ) I Soils (Cl	Wi Dr Sa ots (C3) Ge Sh 6) FA	ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu (C-Neutral ised Ant N	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Mounds (D6) (	) (MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
YDROLO  Vetland Hyd  Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obsern Surface Water Vater Table Saturation Pri	H (2" T Cedex CI's GY Frology Indicators: eators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) posits (B3) tt or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In Vegetated Concave vations: er Present? Ye present? Ye	magery (B7) 9 Surface (B8) es No es No	Water-St: MLRA Salt Crus Aquatic lu Hydroger Oxidized Presence Recent lr Stunted c Other (E)	ained Leave 1, 2, 4A, a t (B11) nvertebrate: a Sulfide Od Rhizospher o f Reduce: on Reduce: on Reduce: on Reduce: on Reduce: on Reduce: on Reduce: nor Stressed cplain in Res 	nd 4B) s (B13) for (C1) res along I d Iron (C4 on in Tilleo Plants (D	Living Rod ) J Soils (Cd 1) (LRR A	Wi Dr Sa ots (C3) Ge Sh 6) FA	ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu .C-Neutral ised Ant M ost-Heave	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Aounds (D6) (I Hummocks (I	) ( <b>MLRA 1, 2,</b> C2) I Imagery (C9) LRR <b>A</b> )
YDROLO  Vetland Hyd  Primary Indic Surface High Wa Saturatic Vater M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obsern Surface Water Nater Table Saturation Pri Includes cap	H (2" T Cedex CI's GY GY Grology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) th Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In Vegetated Concave vations: er Present? Ye present? Ye resent? Ye present?	magery (B7) 9 Surface (B8) es No es No es No	Water-St:     MLRA     Salt Crus     Aquatic In     Hydroger     Oxidized     Presence     Recent Ir     Stunted c     Other (E)      Depth (ii     Depth (ii     Depth (ii	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> <b>t</b> (B11) nvertebrates <b>a</b> Sulfide Od Rhizospher <b>o</b> f Reduce: <b>o</b> r Reducetio <b>o</b> r Stressed (plain in Ref mches): nches):	nd 4B) s (B13) lor (C1) res along l d Iron (C4 on in Tillec Plants (D' marks)	Living Roi ) d Soils (Cl 1) (LRR A		ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu .C-Neutral ised Ant M ost-Heave	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Aounds (D6) (I Hummocks (I	) (MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
YDROLO  Vetland Hyd  Primary Indic Surface High Wa Saturatic Vater M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obsern Surface Water Nater Table Saturation Pri Includes cap	H (2" T Cedex CI's GY Frology Indicators: eators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) posits (B3) tt or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In Vegetated Concave vations: er Present? Ye present? Ye	magery (B7) 9 Surface (B8) es No es No es No	Water-St:     MLRA     Salt Crus     Aquatic In     Hydroger     Oxidized     Presence     Recent Ir     Stunted c     Other (E)      Depth (ii     Depth (ii     Depth (ii	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> <b>t</b> (B11) nvertebrates <b>a</b> Sulfide Od Rhizospher <b>o</b> f Reduce: <b>o</b> r Reducetio <b>o</b> r Stressed (plain in Ref mches): nches):	nd 4B) s (B13) lor (C1) res along l d Iron (C4 on in Tillec Plants (D' marks)	Living Roi ) d Soils (Cl 1) (LRR A		ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu .C-Neutral ised Ant M ost-Heave	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Aounds (D6) (I Hummocks (I	) (MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
	H (2" T Cedex CI's GY GY Grology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) th Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In Vegetated Concave vations: er Present? Ye present? Ye resent? Ye present?	magery (B7) 9 Surface (B8) es No es No es No	Water-St:     MLRA     Salt Crus     Aquatic In     Hydroger     Oxidized     Presence     Recent Ir     Stunted c     Other (E)      Depth (ii     Depth (ii     Depth (ii	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> <b>t</b> (B11) nvertebrates <b>a</b> Sulfide Od Rhizospher <b>o</b> f Reduce: <b>o</b> r Reducetio <b>o</b> r Stressed (plain in Ref mches): nches):	nd 4B) s (B13) lor (C1) res along l d Iron (C4 on in Tillec Plants (D' marks)	Living Roi ) d Soils (Cl 1) (LRR A		ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu .C-Neutral ised Ant M ost-Heave	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Aounds (D6) (I Hummocks (I	) (MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
YDROLO  Vetland Hyd  Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obsern Surface Water Water Table Saturation Pri Includes cap	H (2" T Cedex CI's GY GY Grology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) th Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In Vegetated Concave vations: er Present? Ye present? Ye resent? Ye present?	magery (B7) 9 Surface (B8) es No es No es No	Water-St:     MLRA     Salt Crus     Aquatic In     Hydroger     Oxidized     Presence     Recent Ir     Stunted c     Other (E)      Depth (ii     Depth (ii     Depth (ii	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> <b>t</b> (B11) nvertebrates <b>a</b> Sulfide Od Rhizospher <b>o</b> f Reduce: <b>o</b> r Reducetio <b>o</b> r Stressed (plain in Ref mches): nches):	nd 4B) s (B13) lor (C1) res along l d Iron (C4 on in Tillec Plants (D' marks)	Living Roi ) d Soils (Cl 1) (LRR A		ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu .C-Neutral ised Ant M ost-Heave	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Aounds (D6) (I Hummocks (I	) (MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
	H (2" T Cedex CI's GY GY Grology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) th Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In Vegetated Concave vations: er Present? Ye present? Ye resent? Ye present?	magery (B7) 9 Surface (B8) es No es No es No	Water-St:     MLRA     Salt Crus     Aquatic In     Hydroger     Oxidized     Presence     Recent Ir     Stunted c     Other (E)      Depth (ii     Depth (ii     Depth (ii	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> <b>t</b> (B11) nvertebrates <b>a</b> Sulfide Od Rhizospher <b>o</b> f Reduce: <b>o</b> r Reducetio <b>o</b> r Stressed (plain in Ref mches): nches):	nd 4B) s (B13) lor (C1) res along l d Iron (C4 on in Tillec Plants (D' marks)	Living Roi ) d Soils (Cl 1) (LRR A		ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu .C-Neutral ised Ant M ost-Heave	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Aounds (D6) (I Hummocks (I	) (MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
YDROLO  Vetland Hyp  Primary Indic  Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obsern Saturation Pr (includes cap Describe Rec	H (2" T Cedex CI's GY GY Grology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) th Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial In Vegetated Concave vations: er Present? Ye present? Ye resent? Ye present?	magery (B7) 9 Surface (B8) es No es No es No	Water-St:     MLRA     Salt Crus     Aquatic In     Hydroger     Oxidized     Presence     Recent Ir     Stunted c     Other (E)      Depth (ii     Depth (ii     Depth (ii	ained Leave <b>1</b> , <b>2</b> , <b>4A</b> , <b>a</b> <b>t</b> (B11) nvertebrates <b>a</b> Sulfide Od Rhizospher <b>o</b> f Reduce: <b>o</b> r Reducetio <b>o</b> r Stressed (plain in Ref mches): nches):	nd 4B) s (B13) lor (C1) res along l d Iron (C4 on in Tillec Plants (D' marks)	Living Roi ) d Soils (Cl 1) (LRR A		ater-Staine 4A, and 4 ainage Pa y-Season turation V comorphic allow Aqu .C-Neutral ised Ant M ost-Heave	ed Leaves (B9 HB) tterns (B10) Water Table ( isible on Aeria Position (D2) itard (D3) Test (D5) Aounds (D6) (I Hummocks (I	) (MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)

andform (hillslope, terrace, etc.): <u>berno</u> ubregion (LRR): <u>E-Rocke</u> <u>Mhn Rong [f</u> bil Map Unit Name: <u>104A</u> -FTUV (Guent IC	Local relief (concave Fresh Lat: 44. 274194 - Enclosequells-Status	Range: <u>Slee</u> TO (ab., POQW)         e, convex, none): <u>Slope</u> (%):       1
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	significantly disturbed?     An       naturally problematic?     (If       map showing sampling point     Is the Sample       No     Is the Sample	e "Normal Circumstances" present? Yes <u></u> No <u></u> needed, explain any answers in Remarks.) <b>: locations, transects, important features, etc</b>
Remarks: Gom bank wetlang channel bank wetlang		eg I foot on either side of
EGETATION – Use scientific names of	Absolute Dominant Indicato	Dominance Test worksheet:
<u>ree Stratum</u> (Plot size: <u>5×3⊳</u> , )	<u>% Cover</u> <u>Species?</u> <u>Status</u>	
		Total Number of Dominant
sapling/Shrub Stratum (Plot size: 5/304))	🗇 🛛 = Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
·		Prevalence Index worksheet:     Total % Cover of: Multiply by:     OPL constant
		OBL species     x1 =       FACW species     x2 =
- 10	= Total Cover	FAC species         x 3 =           FACU species         x 4 =           UPL species         x 5 =
Herb Stratum (Plot size: <u>3×74</u> ) . Topha (atifilia	<u>SY</u> OBL	UPL species x 5 = Column Totals: (A) (B)
Verinica americana	<u>s</u> <u>y</u> <u>ubl</u>	Prevalence Index = B/A =
Aloncins anticus	S V FAC	- Hydrophytic Vegetation maleators.
HOVE CLAIS GRACE AND DS		<ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> <li>X 2 - Dominance Test is &gt;50%</li> </ul>
		$ 3 - $ Prevalence Index is $\leq 3.0^{1}$
		4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
L		5 - Wetland Non-Vascular Plants <sup>1</sup>
0		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must
1 Voody Vine Stratum (Plot size:)	20 = Total Cover	be present, unless disturbed or problematic.
		Hydrophytic Vegetation
6 Bare Ground in Herb Stratum	= Total Cover	Present? Yes No
Remarks: littler overs ~ 40%	of herb plat, or	ver water approximally 30% of

	th needed to document the indicator or confirm the	
Depth Matrix	<u>     Redox Features</u> Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
(inches) Color (moist) %	<u>Color (moist)</u> <u>%</u> <u>Type<sup>1</sup></u> Loc <sup>2</sup>	Texture Remarks
	NO SOIL PIT DUC.	
MON LINE	and the second second second	The manage AUCI man Human
Contraction of the second s		
and and there is a summer		a viscou da la relativa de la relativa
		And the second sec
		2
	Reduced Matrix, CS=Covered or Coated Sand Grain	
Hydric Soil Indicators: (Applicable to all I		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	X Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	3 lastin to a flored a built a second time and
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)     Redox Depressions (F8)	wetland hydrology must be present, unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):		uniess disturbed of problematic.
	Carl and the second sec	
Type:	contraction and a second se	Hydric Soil Present? Yes X No
Depth (inches):		Hydric Soil Present? Yes X No
Small wetland of wetl Small wetland of wetl within 6 inches of	level. Diesing Soil pit W on: Definition of horner Soil guraa and water	este completely slough of
Small vere of vert Small vertiand gre within 6 inches of YDROLOGY of Soil Su	land. Dieging soil pit wi	soil - soturation is
Small vere of vert Small vertiand gre within & inches of YDROLOGY of Soil Su Vetland Hydrology Indicators:	levic.) Digging Soil pit w soil Definition of horner Soil Surface and water reace.	soil - soturation is
Small ored of wett Small wetland gre Within & inches gre YDROLOGY of Soil Su Wetland Hydrology Indicators: rrimary Indicators (minimum of one required	iend. Digging Soil pit w soil Surface and water reace.	Soil - Soturation is table is within 12 inc
Small verd of vert Small vertiand gre Within & inches gre YDROLOGY of Soil Su Vetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	icheck all that apply) _ Water-Stained Leaves (B9) (except	<u>Soul - Southanning</u> Standard Indicators (2 or more required) <u>Secondary Indicators (2 or more required)</u> <u>Water-Stained Leaves (B9) (MLRA 1, 2, 2)</u>
Small ored of wett Small wetland of Wethin & inches of YDROLOGY of Soil Su Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) X High Water Table (A2)	Lend. Digsing Soil pit w soil surface and water reace. : check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<u>Soul - Southanning</u> <u>toble is within 12 mag <u>Secondary Indicators (2 or more required)</u> <u>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</u></u>
Small vert and of vert Small vert and of vert Wethin & inches of YDROLOGY of Soil Su Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) X High Water Table (A2) X Saturation (A3)	<pre>check all that apply)</pre>	Soul - Sourchelly slough off Soul - Sourcetting is table is within 12 inc Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Small vert and of vert Small vert and of vert Wethin & inches of YDROLOGY of Soil Su Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	<pre>check all that apply)</pre>	Soul - Sourchefeld slowsh off Soul - Sourcetting is table is within 12 inc <u>Secondary Indicators (2 or more required)</u> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Small over of wett Small wetlands gre Wetland Hydrology Indicators: Primary Indicators (Minimum of one required Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	<pre>check all that apply)</pre>	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     X Saturation Visible on Aerial Imagery (C9)
Small over of wett Small wetlands of Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Creck all that apply)     Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Sait Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roots	Secondary Indicators (2 or more required) toble is within 12 income water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) (C3) Second Complex Position (D2)
Small orea of wett Small wetlands of Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots Presence of Reduced Iron (C4)	<ul> <li>Secondary Indicators (2 or more required)</li> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>X Saturation Visible on Aerial Imagery (C9)</li> <li>(C3) X Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> </ul>
Small orea of wett Small wetlands of Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) Y High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	i: check all that apply)	<ul> <li>Secondary Indicators (2 or more required)</li> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>X Saturation Visible on Aerial Imagery (C9)</li> <li>(C3) Shallow Aquitard (D3)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
Small ored of wett Small wetlands of Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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)	i: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A)	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     X Saturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     X FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Small vertiands vert Wethin & inches Str YDROLOGY Soll Su Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 Imagery (B7	i: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	<ul> <li>Secondary Indicators (2 or more required)</li> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>X Saturation Visible on Aerial Imagery (C9)</li> <li>(C3) Shallow Aquitard (D3)</li> <li>X FAC-Neutral Test (D5)</li> </ul>
Small vertiands vert Small vertiands vert Wethin & inches Str YDROLOGY Soll Su Primary Indicators (minimum of one required 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 Imagery (B7 Sparsely Vegetated Concave Surface (B	i: check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     X Saturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     X FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Small vertiands vert Small vertiands vert Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 Imagery (B7 Sparsely Vegetated Concave Surface (B7 ield Observations:	Creck all that apply)     Water-Stained Leaves (B9) (except     MLRA 1, 2, 4A, and 4B)     Sait Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Roots     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C6)     Stunted or Stressed Plants (D1) (LRR A)     Other (Explain in Remarks)	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     X Saturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     X FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Small       Great of wett         Small       Wetland         Wathin       Great of wett         YDROLOGY       Soll         Station       High Water Soll          Saturation (A3)         Water Marks (B1)       Seliment Deposits (B3)          Algal Mat or Crust (B4)          Iron Deposits (B5)          Surface Soil Cracks (B6)          Inundation Visible on Aerial Imagery (B7          Sparsely Vegetated Concave Surface (B7          Yes		Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     X Saturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     X FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Small       Great of wett         Small       Wetland         Wathin       Great of wett         YDROLOGY       Soll         Station       Soll         Sold       Soll         Sold       Sold         Sold       Sold         Ydet       Marks (B1)         Sediment Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (B7         Sparsely Vegetated Concave Surface (B7         Seld Observations:         Surface Water Present?       Yes         Yes       Nater Table Present?       Yes	Image: Solid Soli	Secondary Indicators (2 or more required) Soul - Sottwarting Stage of the southwart is incompleted by the southwart is incomp
Small       Oregan of weth         Within       Grinary         YDROLOGY       Soil         YDROLOGY       Soil         YDROLOGY       Soil         YUROLOGY       Soil         YUROLOGY       Soil         YUROLOGY       Soil         YUROLOGY       Soil         YUROLOGY       Soil         Yuran       Goil         Yuran       Yes         Yuran		Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     X Saturation Visible on Aerial Imagery (C9)     Shallow Aquitard (D3)     X FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
Small       Oreal of weth         Wethin       La inches         YDROLOGY       Soil         YDROLOGY       Soil         YUROLOGY       Soil         Surface Water (A1)       Satration (A3)         Y 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 Imagery (B7         Sparsely Vegetated Concave Surface (E         Field Observations:         Surface Water Present?       Yes         Nater Table Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes		<u>Secondary Indicators (2 or more required)</u> <u>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</u> Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Small       Oreal of weth         Wethin       La inches         YDROLOGY       Soil         YDROLOGY       Soil         YUROLOGY       Soil         Surface Water (A1)       Satration (A3)         Y 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 Imagery (B7         Sparsely Vegetated Concave Surface (E         Field Observations:         Surface Water Present?       Yes         Nater Table Present?       Yes         Saturation Present?       Yes         Saturation Present?       Yes		<u>Secondary Indicators (2 or more required)</u> <u>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</u> Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Small       Ored of weth         Within       Gradings         YDROLOGY       Soil         YDROLOGY       Soil         YDROLOGY       Soil         Surface       Soil         Surface       Soil         Surface       Water (Al)         X       High Water Table (A2)         X       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 Imagery (B7         Sparsely Vegetated Concave Surface (B5)         Surface Water Present?       Yes         Surface Water Present?       Yes         Saturation Present?       Yes		<u>Secondary Indicators (2 or more required)</u> <u>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</u> Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Small       Ored of weth         Within       Gradies of weth         Within       Gradies of weth         YDROLOGY       Soil Suit         YDROLOGY       Soil Suit         Primary Indicators (minimum of one required       Surface Water (A1)         Y High Water Table (A2)       Yes         Y 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 Imagery (B7         Sparsely Vegetated Concave Surface (E)       Statration Present?         Yes       Nater Table Present?       Yes         Saturation Present?       Yes       Nater Table Present?         Saturation Present?       Yes       Nater Nater Nater Nater Nater Table Present?         Saturation Present?       Yes       Nater		<u>Secondary Indicators (2 or more required)</u> <u>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</u> Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) (C3) Seconorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Small       Ored to of wett         Within       Is include         YDROLOGY       Soll         Staturation       Ymall         Suface Water (A1)       High Water Table (A2)         X Saturation (A3)       Water Marks (B1)         Sediment Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (B7         Sparsely Vegetated Concave Surface (E         Field Observations:         Surface Water Present?       Yes         Nater Table Present?       Yes         Nater Table Present?       Yes         Nater Table Present?       Yes         Nater Table Present?       Yes         Describe Recorded Data (stream gauge, monoscillary fringe)         Describe Recorded Data (stream gauge, monoscillary fringe)		<u>Secondary Indicators (2 or more required)</u> <u>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</u> Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) (C3) Seconorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Small       Oregan of the set of the		<u>Secondary Indicators (2 or more required)</u> <u>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</u> Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) (C3) Seconorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Small       Ored to of wett         Within       Is include         YDROLOGY       Soll         Staturation       Ymall         Suface Water (A1)       High Water Table (A2)         X Saturation (A3)       Water Marks (B1)         Sediment Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (B7         Sparsely Vegetated Concave Surface (E         Field Observations:         Surface Water Present?       Yes         Nater Table Present?       Yes         Nater Table Present?       Yes         Nater Table Present?       Yes         Nater Table Present?       Yes         Describe Recorded Data (stream gauge, monoscillary fringe)         Describe Recorded Data (stream gauge, monoscillary fringe)		<u>Secondary Indicators (2 or more required)</u> <u>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</u> Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) (C3) Seconorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

112.742094

plicant/Owner: <u>Feb.</u> , <u>Wildliff</u> restigator(s): <u>K. Ramsteac</u> ndform (hillslope, terrace, etc.): <u>Slop</u> bregion (LRR): <u>E-Rocks Mtm</u> il Map Unit Name: <u>SUZ-Cocc</u> a climatic / hydrologic conditions on the a Vegetation <u>No</u> , Soil <u>No</u> , or H	Pe Range ten e site typi	LOC ICC	this time of year	Section, Tov Local relief <u>1009</u> <u>170 Sl</u> ar? Yes <u>×</u> disturbed?	(concave, c (	nge: <u>Slo</u> , TOC convex, none): <u>NOVR</u> Long: <u>112° 44' 31,</u> NWI classifica	Slope (% <u>SS</u> Datum: [ <u>A</u> ation: <u>LIU[3Gx</u> emarks.) resent? Yes <u>X</u>	) ): <u>1,5</u> ): <u>8</u>
e Vegetation <u>NR</u> , Soil <u>NR</u> , or H JMMARY OF FINDINGS – At Hydrophytic Vegetation Present? Hydric Soil Present? Vetland Hydrology Present?	tach sit	te ma		sampling	1.8.2.9.7.5	Area		res, etc
Remarks:								
EGETATION – Use scientific	names	of pla	ants.				144	
ree Stratum (Plot size: Sx 30 F	<u>t_</u> )		Absolute % Cover	Dominant Species?		Dominance Test works Number of Dominant Sp	becies (	
		-				That Are OBL, FACW, of Total Number of Domina	ant	_ (A)
				= Total Co	ver	Species Across All Strat Percent of Dominant Sp That Are OBL, FACW, o	pecies 10	(B) (A/B)
apling/Shrub Stratum (Plot size: 5					VCI	Prevalence Index work		_ (AD)
							Multiply by:	
							x 1 =	
						FACW species	x 2 =	
						FAC species		
		-				FACU species		
			0	= Total Co	ver	UPL species		
lerb Stratum (Plot size: <u>スペン</u> 戸	<u>4</u> )		-0	> 1	Carlo	Column Totals:		
Uncus arcticus				<u> </u>	FACH		(V)	(0)
Mentha arrensis		1100		N	FACW	Prevalence Index	= B/A =	
Poa pratensis			0	N	-FAC	Hydrophytic Vegetatic		
Bromus nermis			10	N	UPL		hydrophytic Vegetation	
Cirsium anense			2	N	FAC.	2 - Dominance Tes	t is >50%	
						3 - Prevalence Inde	ex is ≤3.0 <sup>1</sup>	
						4 - Morphological A data in Remarks	daptations <sup>1</sup> (Provide s s or on a separate she	upporting et)
						5 - Wetland Non-Va	ascular Plants <sup>1</sup>	
0						Problematic Hydrog	phytic Vegetation <sup>1</sup> (Exp	olain)
		1.1				<sup>1</sup> Indicators of hydric soi	I and wetland hydrolog	y must
1 (Plot size:	20-f	)	87	= Total Co	ver	be present, unless distu	urbed or problematic.	
. (Fiot size:	0-					Hydrophytic		
				14.45		Vegetation		
2	)		0	= Total Co	ver	Present? Yes	s_ <u> </u>	277
% Bare Ground in Herb Stratum					All and a loss	.0		
Remarks:			0	Snar	2070	litter 15		

1.80

Profile Description: (Describe to	o the dep	th needed to docur	nent the	indicator	or confirm	n the absen	ce of indicators.)
Depth Matrix			x Feature				
(inches) Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks
0-1 104R 2/1	100	And the second sec				port	a grand a
L-5 LOYR 41.	100					Santy	in
5-11 104122/1	95	7.5 YR 3/4	5	0	LA	Janken	oaun
11-14+ 104R5/1	10	JEUD HI				Team	
11-14+ 1046-11		TISYKIL	20	C	M	sand	- Calably
						/	
		104R4/2	5	D	ME		Concentrations Depletions
							S-N"
			·				
		1. 1 M 1. 10	_	-		_	
<sup>1</sup> Type: C=Concentration, D=Deple					d Sand Gr		Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Application)	ble to all	LRRs, unless other	wise not	ed.)		Indica	ators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)		Sandy Redox (S	65)			2	cm Muck (A10)
Histic Epipedon (A2)		Stripped Matrix					ed Parent Material (TF2)
Black Histic (A3)		Loamy Mucky M			MLRA 1)		ery Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)		Loamy Gleyed I		2)		_ 0	ther (Explain in Remarks)
Depleted Below Dark Surface	(A11)	Depleted Matrix					
Thick Dark Surface (A12)		Redox Dark Su					ators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)		Depleted Dark S		-7)			tland hydrology must be present,
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):		Redox Depress	ions (F8)			uni	less disturbed or problematic.
Type: Cobble						and the sur	
Depth (inches):14						Hvdric Sc	oil Present? Yes No No
YDROLOGY Wetland Hydrology Indicators:							
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one	e required	I; check all that apply	0		A CARLER CONTRACTOR		condary Indicators (2 or more required)
YDROLOGY Wetland Hydrology Indicators:	e required	I: check all that apply		es (B9) (es	ccept	<u>Sec</u>	condary Indicators (2 or more required)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one	e required	Water-Stai			ccept	<u>Sec</u>	condary Indicators (2 or more required)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	e required	Water-Stai	ned Leav I, 2, 4A, a		ccept	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	e required	Water-Stain MLRA 1	ned Leav I <b>, 2, 4A,</b> a (B11)	and 4B)	ccept	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one 	e required	Water-Stain MLRA 1 Salt Crust (	ned Leave I, <b>2, 4A,</b> a (B11) rertebrate	and 4B) s (B13)	ccept	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one 	e required	Water-Stain MLRA 1 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R	ned Leave I, <b>2, 4A, a</b> (B11) rertebrate Sulfide Oc hizosphe	and 4B) s (B13) dor (C1) res along l	_iving Roo	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	e required	Water-Stain MLRA 1 Salt Crust 0 Aquatic Inv Hydrogen 5	ned Leave I, <b>2, 4A, a</b> (B11) rertebrate Sulfide Oc hizosphe	and 4B) s (B13) dor (C1) res along l	_iving Roo	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	e required	Water-Stain MLRA 1 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R	ned Leave I, 2, 4A, a (B11) ertebrate Sulfide Oc hizospher of Reduce	and 4B) s (B13) dor (C1) res along l ed Iron (C4	_iving Roo	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	e required	Water-Stair     MLRA 1     Salt Crust (     Aquatic Inv     Hydrogen 3     Oxidized R     Presence c	ned Leave I, <b>2, 4A, a</b> (B11) rertebrate Sulfide Oc hizosphe of Reduce on Reduction	and 4B) s (B13) dor (C1) res along I ed Iron (C4 on in Tilleo	iving Roo ) I Soils (C6)	<u>Sec</u> 	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one 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-Stain MLRA 1 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or	ned Leave (B1, <b>2, 4A, a</b> (B11) rertebrate Sulfide Oc hizospher of Reduce of Reducted Stressed	and 4B) s (B13) dor (C1) res along l d Iron (C4 on in Tilleo Plants (D	iving Roo ) I Soils (C6)	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLOGY Metland Hydrology Indicators: Primary Indicators (minimum of one 	agery (B7	Water-Stair MLRA 1 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Exp	ned Leave (B1, <b>2, 4A, a</b> (B11) rertebrate Sulfide Oc hizospher of Reduce of Reducted Stressed	and 4B) s (B13) dor (C1) res along l d Iron (C4 on in Tilleo Plants (D	iving Roo ) I Soils (C6)	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY Metland Hydrology Indicators: Primary Indicators (minimum of one 	agery (B7	Water-Stair MLRA 1 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Exp	ned Leave (B1, <b>2, 4A, a</b> (B11) rertebrate Sulfide Oc hizospher of Reduce of Reducted Stressed	and 4B) s (B13) dor (C1) res along l d Iron (C4 on in Tilleo Plants (D	iving Roo ) I Soils (C6)	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one 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 Im Sparsely Vegetated Concave S Field Observations:	agery (B7 Surface (E	Water-Stair MLRA Salt Crust of Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Exp 38)	ned Leave I, <b>2, 4A</b> , a (B11) vertebrate Sulfide Oc hizospher of Reduce n Reductio Stressed lain in Re	and 4B) s (B13) dor (C1) res along l d Iron (C4 on in Tilleo Plants (D	iving Roo ) I Soils (C6)	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one Surface Water (A1)         A High Water Table (A2)         Saturation (Å3)         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 Im         Sparsely Vegetated Concave S         Field Observations:         Surface Water Present?	agery (B7 Surface (E 3 N	Water-Stair MLRA 1 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence or Recent Iror Stunted or Other (Exp 38)	ned Leave (B1, 2, 4A, a (B11) rertebrate Sulfide Oc hizospher of Reduce n Reduction Stressed lain in Re hes):	and 4B) s (B13) dor (C1) res along l d Iron (C4 on in Tilleo Plants (D	iving Roo ) I Soils (C6)	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY         Primary Indicators (minimum of one 	agery (B7 Surface (E 3 N 5 N	Water-Stair     MLRA     Salt Crust (     Aquatic Inv     Hydrogen S     Oxidized R     Presence c     Recent Iror     Stunted or     Other (Exp     88)	hed Leaving (2, 4A, a) (B11) ertebrate Sulfide Ochizospherio f Reduce in Reduction Stressed lain in Re- hes):	and 4B) s (B13) dor (C1) res along l d Iron (C4 on in Tilleo Plants (D	Living Roo ) I Soils (C6) I) (LRR A)	<u>Sec</u>	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLOGY         Primary Indicators (minimum of one 	agery (B7 Surface (E s N s N s N	Water-Stail MLRA Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iror Stunted or Other (Exp 88) No Composition Depth (inc No	hed Leaving 1, 2, 4A, a (B11) retebrate Sulfide Oc hizosphein f Reduce n Reduction Stressed lain in Re hes): hes):	and 4B) s (B13) dor (C1) res along I d Iron (C4 on in Tillec Plants (D' marks)	iving Roo ) Soils (C6 )) (LRR A)   Wetla	Sec 	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY         Primary Indicators (minimum of one 	agery (B7 Surface (E s N s N s N	Water-Stail MLRA Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iror Stunted or Other (Exp 88) No Composition Depth (inc No	hed Leaving 1, 2, 4A, a (B11) retebrate Sulfide Oc hizosphein f Reduce n Reduction Stressed lain in Re hes): hes):	and 4B) s (B13) dor (C1) res along I d Iron (C4 on in Tillec Plants (D' marks)	iving Roo ) Soils (C6 )) (LRR A)   Wetla	Sec 	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one 	agery (B7 Surface (E s N s N s N	Water-Stail MLRA Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iror Stunted or Other (Exp 88) No Composition Depth (inc No	hed Leaving 1, 2, 4A, a (B11) retebrate Sulfide Ochizospheri of Reduce n Reduction Stressed lain in Re hes): hes):	and 4B) s (B13) dor (C1) res along I d Iron (C4 on in Tillec Plants (D' marks)	iving Roo ) Soils (C6 )) (LRR A)   Wetla	Sec 	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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 Im     Sparsely Vegetated Concave S Field Observations: Surface Water Present? Yes Saturation Present? Yes Sat	agery (B7 Surface (E S N S N auge, more	Water-Stair     MLRA     MLRA     Salt Crust (     Aquatic Inv     Hydrogen S     Oxidized R     Presence c     Recent Iror     Stunted or     Other (Exp 88)	hed Leaving 1, 2, 4A, a (B11) retebrate Sulfide Ochizospheri of Reduce n Reduction Stressed lain in Re hes): hes):	and 4B) s (B13) dor (C1) res along I d Iron (C4 on in Tillec Plants (D' marks)	iving Roo ) Soils (C6 )) (LRR A)   Wetla	Sec 	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  pgy Present? Yes No
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one 	agery (B7 Surface (E S N S N auge, more	Water-Stail MLRA Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iror Stunted or Other (Exp 88) No Composition Depth (inc No	hed Leaving 1, 2, 4A, a (B11) retebrate Sulfide Ochizospheri of Reduce n Reduction Stressed lain in Re hes): hes):	and 4B) s (B13) dor (C1) res along I d Iron (C4 on in Tillec Plants (D' marks)	iving Roo ) Soils (C6 )) (LRR A)   Wetla	Sec 	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one 	agery (B7 Surface (E S N S N auge, more	Water-Stair     MLRA     MLRA     Salt Crust (     Aquatic Inv     Hydrogen S     Oxidized R     Presence c     Recent Iror     Stunted or     Other (Exp 88)	hed Leaving 1, 2, 4A, a (B11) retebrate Sulfide Ochizospheri of Reduce n Reduction Stressed lain in Re hes): hes):	and 4B) s (B13) dor (C1) res along I d Iron (C4 on in Tillec Plants (D' marks)	iving Roo ) Soils (C6 )) (LRR A)   Wetla	Sec 	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  pgy Present? Yes No
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one 	agery (B7 Surface (E S N S N auge, more	Water-Stair     MLRA     MLRA     Salt Crust (     Aquatic Inv     Hydrogen S     Oxidized R     Presence c     Recent Iror     Stunted or     Other (Exp 88)	hed Leaving 1, 2, 4A, a (B11) retebrate Sulfide Ochizospheri of Reduce n Reduction Stressed lain in Re hes): hes):	and 4B) s (B13) dor (C1) res along I d Iron (C4 on in Tillec Plants (D' marks)	iving Roo ) Soils (C6 )) (LRR A)   Wetla	Sec 	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  pgy Present? Yes No
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one)	agery (B7 Surface (E S N S N auge, more	Water-Stail     MLRA     MLRA     Salt Crust (     Aquatic Inv     Hydrogen S     Oxidized R     Presence c     Recent Iror     Stunted or     Other (Exp 88)	hed Leaving 1, 2, 4A, a (B11) retebrate Sulfide Ochizospheri of Reduce n Reduction Stressed lain in Re hes): hes):	and 4B) s (B13) dor (C1) res along I d Iron (C4 on in Tillec Plants (D' marks)	iving Roo ) Soils (C6 )) (LRR A)   Wetla	Sec 	condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  pgy Present? Yes No

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- 1	17	-	101	MT
- 1	12	. 7	40	01

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	and Park	0		State: MT Sampling Point: 0019
plicant/Owner: <u>fish</u> , <u>Wildlife</u> estigator(s): <u>K. Romstea</u>	0410 10			nge: SILE, TOUN, ROAW
				convex, none): Slope (%):
ndform (hillslope, terrace, etc.): <u>Slop</u>	. Ac. at	2110	IL CONCAVE,	Long: 112.44'31.477" W Datum: WCS8
		117	10011110	NWI classification: LIVIBCX
il Map Unit Name: <u>Slo Z - Cort</u>			(	
e climatic / hydrologic conditions on the	site typical for this time	of year		
e Vegetation <u>No</u> , Soil <u>Noo</u> , or Hyd				"Normal Circumstances" present? Yes <u>X</u> No
Vegetation 🏡 , Soil <u>NO</u> , or Hyd	drology <u>NO</u> natura	lly probl	ematic? (If ne	eeded, explain any answers in Remarks.)
JMMARY OF FINDINGS - Atta	ch site map show	wing s	ampling point I	ocations, transects, important features, etc
ydrophytic Vegetation Present?	Yes No	X		
lydric Soil Present?	Yes No	×	Is the Sampled	~
/etland Hydrology Present?	Yes No	X	within a Wetlan	nd? Yes No /
emarks:				
			1000	
GETATION - Use scientific na	ames of plants.			
C .= .=			Dominant Indicator	Dominance Test worksheet:
ree Stratum (Plot size: <u>SX30F4</u>	_) <u>% C</u>	over	Species? Status	Number of Dominant Species
				That Are OBL, FACW, or FAC: (A)
				Total Number of Dominant
				Species Across All Strata: [ (B)
		0		Percent of Dominant Species
apling/Shrub Stratum (Plot size: <u>Sx</u>	ZIDEL )	0_=	= Total Cover	That Are OBL, FACW, or FAC: (A/B
				Prevalence Index worksheet:
				Total % Cover of:Multiply by:
				OBL species x 1 =
				FACW species x 2 =
		1	and the second	FAC species x 3 =
		0	= Total Cover	
erb Stratum (Plot size: SXS Pt	_)			UPL species $100 \times 5 = 300$
Bornus mermis		30	Y UPL	Column Totals: (A) (B)
Descurance applice		0	NUPL	Prevalence Index = B/A =, See
Pascopyron smithil		10	N FACU	Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
				3 - Prevalence Index is ≤3.0 <sup>1</sup>
				4 - Morphological Adaptations <sup>1</sup> (Provide supportin data in Remarks or on a separate sheet)
				5 - Wetland Non-Vascular Plants <sup>1</sup>
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
0				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1		-		be present, unless disturbed or problematic.
/oody Vine Stratum (Plot size: 5x	30A) -	=	Total Cover	
	/			Hydrophytic
·				Vegetation
				Present? Yes No
		D =	Total Cover	
Bare Ground in Herb Stratum		<u> </u>	Total Cover	

US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Version 2.0

Profile Description: (Descr	ibe to the depth	needed to document the indicator or co	onfirm the absence	of indicators.)
Depth Matr	ix	Redox Features		
(inches) Color (moist	)%	Color (moist) % Type <sup>1</sup> Lo	oc <sup>2</sup> Texture	Remarks
3-8 IHR 2	an 11		Sand C	la loom
			5	5,000,1
	1.			
				and the second
		· · · · · · · · · · · · · · · · · · ·	<u> </u>	
and a fair of the second				- alia as
			2	
		teduced Matrix, CS=Covered or Coated Sa RRs, unless otherwise noted.)		cation: PL=Pore Lining, M=Matrix. prs for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)		_ Sandy Redox (S5)		n Muck (A10)
Histic Epipedon (A2)		_ Stripped Matrix (S6)	The second se	Parent Material (TF2)
Black Histic (A3)	-	Loamy Mucky Mineral (F1) (except ML		y Shallow Dark Surface (TF12)
<ul> <li>Hydrogen Sulfide (A4)</li> <li>Depleted Below Dark Sul</li> </ul>		Loamy Gleyed Matrix (F2)	Oth	er (Explain in Remarks)
		_ Depleted Matrix (F3)	3 In all a sta	ors of hydrophytic vegetation and
Thick Dark Surface (A12 Sandy Mucky Mineral (S	V	_ Redox Dark Surface (F6)		
		_ Depleted Dark Surface (F7)		nd hydrology must be present,
Sandy Gleyed Matrix (S4		_ Redox Depressions (F8)	unies	s disturbed or problematic.
Restrictive Layer (if present	All and a second se			
Type: <u>compactiv</u>	1 lock			N
Depth (inches):			Hydric Soil	Present? Yes No X
Remarks:				
YDROLOGY	re -			
YDROLOGY Wetland Hydrology Indicato		check all that apply)	Seco	ndary Indicators (2 or more required)
YDROLOGY Wetland Hydrology Indicato				ndary Indicators (2 or more required)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1)		Water-Stained Leaves (B9) (excep		/ater-Stained Leaves (B9) (MLRA 1, 2
YDROLOGY  Vetland Hydrology Indicato  Primary Indicators (minimum  Surface Water (A1) High Water Table (A2)		Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B)	ot V	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
YDROLOGY  Yetland Hydrology Indicato  Primary Indicators (minimum  Surface Water (A1) High Water Table (A2) Saturation (A3)		Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	ot V	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10)
YDROLOGY Yetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)		Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	ot V	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
YDROLOGY  Yetland Hydrology Indicato  Primary Indicators (minimum  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	ot V	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C
YDROLOGY  Vetland Hydrology Indicato  Primary Indicators (minimum  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	ot V	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C
YDROLOGY  Yetland Hydrology Indicato  Primary Indicators (minimum  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	ot V D D S g Roots (C3) G	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C
YDROLOGY  Vetland Hydrology Indicato  Primary Indicators (minimum  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Livin	g Roots (C3)	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C eomorphic Position (D2)
		Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Livin     Presence of Reduced Iron (C4)	pt V D S g Roots (C3) G S ils (C6) F	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C eomorphic Position (D2) hallow Aquitard (D3)
YDROLOGY  Wetland Hydrology Indicato  Primary Indicators (minimum 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)	of one required; o	Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Livin     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soi     Stunted or Stressed Plants (D1) (L	pt V D S g Roots (C3) G S ils (C6) F <b>RR A</b> ) R	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
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YDROLOGY  Vetland Hydrology Indicate  rimary Indicators (minimum  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 Aer Sparsely Vegetated Conc	of one required; o	Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Livin     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soi     Stunted or Stressed Plants (D1) (L     Other (Explain in Remarks)	pt V D S g Roots (C3) G S ils (C6) F <b>RR A</b> ) R	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
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US Army Corps of Engineers

Western Mountains, Valleys, and Coast - Version 2.0

Appendix D

### Vegetation Communities and Other Land Cover Types

in the Racetrack Pond Project Area

# APPENDIX D: VEGETATION COMMUNITIES AND OTHER LAND COVER TYPES IN THE RACETRACK POND PROJECT AREA

This appendix summarizes the area of existing vegetation communities and other land cover types that are present in the Racetrack Pond project area. **Sheet C07-Existing Vegetation Communities** shows the locations of mapped vegetated communities and other land cover types in the project area. **Table 1** provides a summary of the portion of the project area occupied by each vegetation community or land cover type and the expected impact from to each from project actions.

Vegetation Community or Land Cover Type	Existing Area (acres)	Estimated Impacted Area (acres)	Estimated Impact - Percent of Existing Area	
Vegetation Communities				
Upland non-native	18.21	17.62	96.78%	
Hayfield	2.44	0.50	20.57%	
Herbaceous wetland	1.49	1.05	70.09%	
Shrub wetland	0.95	0.002	0.19%	
Aquatic bed	0.03	0.03	100.00%	
Sub-total	23.12	19.20		
Unvegetated Cover Types			1	
Open water	51.09	51.04	99.91%	
Roads	2.44	2.38	97.46%	
Material stockpile	2.43	2.43	100.00%	
Unvegetated surface	1.44	1.44	100.00%	
Sub-total	57.40	57.29		
Total	80.52	53.95		

## Table D1. Area (acres) of existing and impacted vegetation communities and other land cover typesin the Racetrack Pond project area.

#### **Upland Non-Native**

Upland non-native vegetation communities are upland areas dominated by non-native species. Includes areas around Racetrack Pond that are fully vegetated and dominated by smooth brome and tall tumble mustard. Patches of more sparsely vegetated upland communities are scattered around the pond and dominated by cheatgrass. Some upland communities around the northern portion of the pond that were more recently disturbed by excavation are dominated by tall tumble mustard. Dominant species include:

- Smooth brome (*Bromus inermis*)
- Cheatgrass (*Bromus tectorum*)
- Herb sophia (*Descurainia sophia*)
- Kentucky bluegrass (Poa pratensis)
- Tall tumble mustard (Sisymbrium altissimum)

#### <u>Hayfield</u>

Hayfield vegetation community includes an upland field in the northern portion of the project area, north of Racetrack Pond. The field is seeded with pasture grasses and forbs and the vegetation is cut for hay. Low elevation swales in the field are dominated by wetland herbaceous species. Dominant species include:

- Smooth brome (*Bromus inermis*)
- Kentucky bluegrass (*Poa pratensis*)
- Timothy (*Phleum pratense*)
- Redwool plantain (Plantago eriopoda)
- Alfalfa (Medicago sativa)
- Arctic rush (Juncus arcticus)

#### Herbaceous Wetland

Herbaceous wetland vegetation communities include emergent wetland dominated by herbaceous wetland species. Herbaceous wetlands occur around the perimeter of the southern portion of Racetrack Pond, along the pond outlet channel, in low elevation swales in the southern portion of the project area, in the northern hayfield, and along the edge of the Clark Fork River side channel. Dominant species include:

- Arctic rush (*Juncus arcticus*)
- Creeping meadow foxtail (Alopecurus arundinaceus)
- Common cattail (*Typha latifolia*)
- American speedwell (Veronica americana)
- Kentucky bluegrass (*Poa pratensis*)
- Nebraska sedge (*Carex nebrascensis*)
- Sedges (Carex spp.)

#### Shrub Wetland

Shrub wetland vegetation communities are located in a swale in the northern portion of the project area, along the edge of a peninsula in the southern portion of Racetrack Pond and along a side channel of the Clark Fork River. The northern swale may be an old side channel of the Clark Fork River and the shrubs in this area are an older age class than the shrubs present around the edge of Racetrack Pond. Dominant species include:

- Water birch (*Betula occidentalis*)
- Bebb willow (Salix bebbiana
- Booth's willow (Salix boothii)
- Drummond's willow (*Salix drummondiana*)

#### **Aquatic Bed**

Aquatic bed vegetation communities include the narrow fringe of aquatic vegetation along portions of the western edge of the southern portion of Racetrack Pond. Standing water, approximately 4 to 6 inches deep was present during June 2017 in areas of aquatic bed communities. Dominant species include:

• American speedwell (Veronica americana)

Several unvegetated land cover types are also present in the Racetrack Pond project area. The open water area of Racetrack Pond is the largest feature in the project area, occupying approximately 51 acres. The northern portion of Racetrack Pond was excavated in 2016 and unvegetated surfaces resulting from the recent excavation are present around the edges of the northern portion of the pond and in other construction areas including a sediment pond in the northwest corner of the project area. Unvegetated material stockpiles are present along the north end of the 2016 excavation area and in the southern portion of the project area near the entrance to the site. Haul roads associated with the 2016 excavation and other access roads are present on both the east and west sides of the pond.

Appendix E

Racetrack Pond Design Habitats

#### **APPENDIX E: RACETRACK POND DESIGN HABITATS**

**Table E** describes the habitat types that will be created by project actions.**Sheet C08 – Design Habitats**shows the design habitats and planting areas in the project area.**Sheet C09 – Existing and ProposedWater Habitats** compares existing and proposed pond depths for deep water habitats (greater than orequal to 12 feet in depth) and shallow water habitats (less than or equal to 2 feet in depth).

Habitat Type	Total Post Project Area (acres)	Description/Design Criteria
Terrestrial habitat	16.6	All habitat from the water surface extending to the top of the pond embankments/slope will be terrestrial habitat. Native shrubs will be planted intermittently within this habitat to increase diversity and provide food and cover for birds and small mammals. Soil would also be placed in this habitat to the extent possible to establish diverse, native herbaceous vegetation.
Shorebird habitat	0.7	Shorebirds are a large group of birds, including killdeer, spotted sandpiper, and American avocet that feed on invertebrates in shallow habitats along shorelines. This habitat will be created through grading of shallow slopes near the water surface along the pond margin and adding soil to some of the saturated shoreline to support invertebrate colonization.
Shallow, wading bird habitat	3.8	This habitat is being created to support wading ducks or dabblers. Dabblers are ducks, such as mallards, that feed at or near the surface and prefer shallow unvegetated habitats. This habitat will be created through grading of shallow slopes below the water elevation around the margin of the pond to create water depths up to 3 feet.
Emergent marsh habitat	2.0	This habitat is being created to support rail species, a family of shorebirds, such as sora, that prefer dense marsh habitats, such as bulrush and sedge, for feeding and breeding. Emergent marsh habitat will be created in the large, shallow wetland area on the northeast end of the pond where herbaceous wetland plants will be installed.
Deep water habitat	5.85	Deep water habitat (>12 feet) will be increased to support fish overwintering and increase habitat for diving birds. Divers are ducks, such as bufflehead and hooded merganser, that dive underwater for food. Diver habitat will be created by excavating some areas to a target a maximum depth of 15 feet.

#### Table E1. Racetrack Pond habitat features and design criteria.

Appendix F Tourism Report

### TOURISM REPORT MONTANA ENVIRONMENTAL POLICY ACT (MEPA) & MCA 23-1-110

The Montana Department of Fish, Wildlife and Parks has initiated the review process as mandated by MCA 23-1-110 and the Montana Environmental Policy Act in its consideration of the project described below. As part of the review process, input and comments are being solicited. Please complete the project name and project description portions and submit this form to:

Jan Stoddard, Visitor Services Manager Travel Montana-Department of Commerce 301 S. Park Ave. Helena, MT 59601

**Project Name:** Montana Natural Resource Damage Program (NRDP) and FWP for a proposed fishing access site (FAS) at Racetrack Pond, near Racetrack, MT on the Clark Fork River.

**Project Description:** The NRDP and FWP propose to improve the existing Racetrack Pond area with increased habitat and amenities for inclusion in FWP's system of FASs. Racetrack Pond is located west of the Clark Fork River at Racetrack, Montana, and approximately 8 miles south of the City of Deer Lodge. The site functions as habitat for stocked fish and migrating waterfowl, but is generally underutilized for wetlands and recreation he Proposed Actions include: pond habitat upgrades include regrading approximately 170,000 cubic yards of material and reusing this material as fill resulting in a net zero design plan where no fill is required or left over upon project completion. The existing pond outlet will be upgraded to include a fish barrier and relocation of the outlet channel to an approximately 1,900-foot meandering stream that creates wetland and aquatic habitat opportunities. The proposed FAS developments include access roads, walking trails, boat launch, parking area including ADA accessible parking, and an ADA fishing access platform.

The pond is stocked annually by FWP with westslope cutthroat trout and sterile rainbow trout. Other species present in the pond include: largescale sucker, brown trout, mountain whitefish, and yellow perch (J. Lindstrom, personal communication). Yellow perch were illegally introduced into Racetrack Pond at an unknown date and pose a threat to stocked fish as they compete for food and other resources. The perch also represent a source of fish for other possible illegal introductions. During dewatering of the pond, FWP personnel will capture and remove as many illegally introduced and non-game fish as possible. Fish capture will be done either through electroshocking or use of nets, depending on water depths. After construction activities are complete, FWP will restock Racetrack Pond in spring 2018 with westslope cutthroat trout and sterile rainbow trout.

1. Would this site development project have an impact on the tourism economy? NO YES If YES, briefly describe:

Yes, as described, the project has the potential to positively impact the tourism and recreation industry economy if properly maintained. The opportunity to fish Montana waters and native Montana fish populations is marketed to destination visitors from around the world. This includes emphasizing recreational opportunities (floating, fishing, camping, hiking, and sightseeing) in accessible locations. Racetrack Pond is an essential asset for Montana's outdoor recreation industry.

We are assuming the agency has determined it has necessary funding for the on-going operations and maintenance once this project is complete.

Does this impending improvement alter the quality or quantity of recreation/tourism opportunities and settings?
 NO
 YES
 If YES, briefly describe

Yes, as described, the project has the potential to improve quality and quantity of tourism and recreational opportunities if properly maintained. These improvements including access roads, walking trails, a parking area with ADA accessible parking, and an ADA fishing access platform which are critical to the safety and usability by users, including nonresident visitors. We are assuming the agency has determined it has necessary funding for the on-going operations and maintenance once this project is complete.

Signature Jan Stoddard Date: 7/6/17