# Site Management Plan for Credo Ra, LLC APN 210-041-011; Tier 2, Low Risk

#### PREPARED FOR

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#### Purpose:

This document serves as the Site Management Plan on behalf of the discharger, Credo Ra LLC, pursuant to Order No. WQ 2019-001-DWQ (General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for discharges of Waste Associated with Cannabis Cultivation Activities) of the California Water Code Section 13260(a).

#### Tier Designation

This property has been classified as a Tier 2, Low Risk designation.

# 1 SEDIMENT DISCHARGE BEST PRACTICAL TREATMENT OR CONTROL (BPTC)

#### 1.1 Site Characteristics

#### 1.1.1 Site Overview

Elevated Solutions has been contracted by the owners of APN 210-041-011 to perform a site assessment and develop a Water Resource Protection and Site Management Plan to decrease existing and potential future sediment delivery to tributaries of the Eel River and reduce other threats to water quality. The site plan for the property is shown on Figure 1.

In August 2018, a site visit was conducted by Elevated Solutions in which a road inventory and assessment of cultivation areas were evaluated. All site locations are shown in Appendix B and each site is described below.

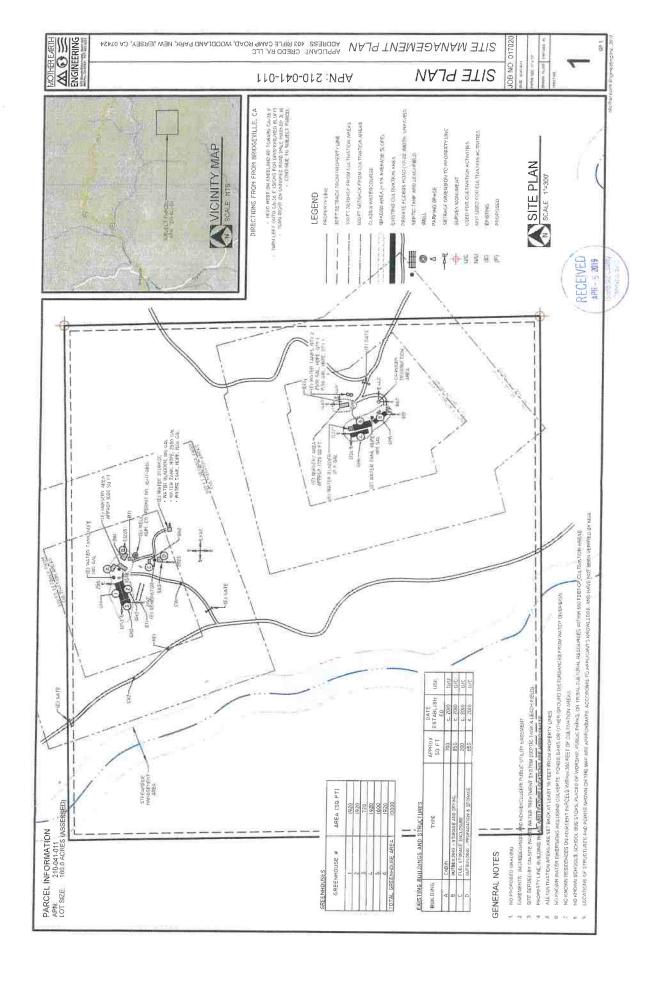
- Permitted Groundwater Well is the domestic and agricultural source of water and is also used for topping of tanks during the non-forbearance period.
- Credo Ra currently has 30,000 gallons of hard plastic tank storage that is filled up during the non-forbearance months and used during the forbearance period.
- Credo Ra currently has an interim permit with Humboldt County and a Provisional License with the State of California to cultivate 12,150 SF of outdoor cultivation in metal greenhouse structures for the 2020 season.

The subject property is located off Hwy 36 in Larabee Valley, situated in a draw that drains into the Little Larabee Creek which is a tributary to the Van Duzen, tributary to the Eel River. The property and surrounding vicinity is composed of Franciscan Complex geology consisting of Cretaceous and Jurassic sandstone with smaller amounts of shale, chert, limestone, and conglomerate as well as Franciscan mélanger. Based on NRCS soils map for the region2, the cultivation areas and proposed project components are in Yorknorth-Devilshole complex.

California Department of Conservation, Geologic Map of California (2010), accessed online at: http://maps.conservation.ca.gov/cgs/gmc

<sup>2</sup> NRCS Watershed Boundary Dataset, Sub-region level, 2012.

Figure 1. APN 210-041-011 overview map.



#### 1.1.2 Access Road Conditions

Overall, the primary access roads on the property are in good condition. The roads were processed in 2018 by a licensed contractor with rolling dips/out slope installed but will need to be surfaced with rock during the 2020 construction season. All roads will be evaluated after the winter rains/snow and processed if needed.

#### 1.1.3 Legacy Waste Discharge Issues

Legacy disturbance from historic timber harvest on the property prior to current ownership has been assessed and is generally limited to the currently utilized access roads. The road network and cultivation areas are inspected regularly for signs of erosion that could exacerbated the legacy waste discharge issues.

#### 1.1.4 Vehicle stream crossing

There are 5 road/stream crossing on the property that will be upgraded per the LSA agreement. Crossing #1 is a re-alignment of a class III stream channel through installation of a 24-inch diameter CMP culvert. Crossing #2 is an existing 12-inch diameter culvert and will be upgraded to a 24-inch diameter by 30-foot long CMP culvert. Crossing #3 is an existing 18-inch diameter culvert and will be upgraded to a 30-inch diameter by 30-foot long CMP culvert. Crossing #4 is an existing rocked ford crossing on a class III stream and will have the outlet armored with 1/16-ton rip rap. Crossing#5 is an existing 24-inch diameter culvert and will be upgraded to a 48-inch diameter by 30-foot long CMP culvert.

#### 1.2 Sediment Erosion Prevention and Sediment Capture

#### 1.2.1 Roads - Sediment and Erosion Prevention

All roads on the property are in good condition. No significant road maintenance is needed except for standard annual maintenance such as graveling and reshaping. The road system was processed and rocked in 2018 and rolling dips/ out sloping has been implemented and will be monitored after the winter rains/snow and be repaired as needed.

#### 1.2.2 Cultivation Areas - Sediment and Erosion Prevention

All cultivation sites have appropriate setbacks from watercourses and follow the BMPs. Soil pile is covered starting October 1 with plastic and the perimeter is contained with straw wattles. All dirt areas have straw applied and straw bales have been placed strategically on out sloped areas to prevent any sediment delivery. Greenhouse covers have been removed and wattles have been placed around the perimeter of the structure.

#### 1.2.3 Other Areas - Sediment and Erosion Prevention

#### 1.2.3.1 Groundwater Well Treatments

Water is provided by a permitted groundwater well. Water is stored during the winter months into the 30,000 gallons of hard plastic tank storage and used for agricultural use during the forbearance period.

#### 1.2.4 Maintenance - Sediment and Erosion Prevention

- Erosion and sediment control best management practices (BMPs) shall be installed prior to the wet season (1 October through 30 April).
- Sensitive areas and areas where existing vegetation is being preserved shall be protected with construction fencing; fencing shall be maintained throughout construction activities.
- All areas disturbed during grading activities shall be seeded with native grass seed and mulched with rice straw.
- Prior to seeding and straw, disturbed areas should be roughened by track walking with a
  dozer.
- Straw shall be applied at a uniform rate of approximately 4,000 lbs per acre by hand.
- At the completion of the project, straw wattles shall be placed as directed by the engineer or geologist.
- All sediment control BMPs shall be maintained throughout the wet season until new vegetation has become established on all graded areas.
- Soil Pile is covered with plastic, secured with rope and sandbags, and straw wattles have been placed around the perimeter. Long term solution will be a wooden structure around the soil pile to prevent delivery with a covered roof to prevent leaching.

# 2 FERTILIZER, PESTICIDE, HERBICIDE, AND RODENTICIDE BPTC MEASURES

#### 2.1 Summary of Products Used

#### 2.1.1 Fertilizer

Fertilizers, potting soils, compost, and other soils and soil amendments are stored in locations and in a manner in which they cannot enter or be transported into surface waters and such that nutrients or other pollutants cannot be leached into groundwater. All soil is contained in pots inside the greenhouse structures, covered with plastic, and straw wattles have been placed around the perimeter to avoid any delivery to surface waters.

If the landowner wishes to keep fertilizers and soil amendments on the Project Site, they should continue to be stored fully under cover, off the ground, and in a stable location not exposed to the elements. All fertilizers are stored in a secure cargo shipping container with secondary containment, identified as Nutrient and Pesticide storage area. Fertilizers, potting soils, compost, and other soils and soil amendments should not be stored with petroleum products as they may be incompatible and could potentially react. All petroleum products are stored in a secure cargo shipping container with secondary containment identified as Oil and Petroleum storage area.

Applicant is required to keep detailed records of the type, timing and volume of fertilizers and/or other soil amendments you use in your operations. Observe and monitor soil moisture so watering, fertilizer and chemical applications are made only when necessary and overwatering and excess infiltration is avoided. Credo Ra utilizes hand watering to avoid any overwatering.

#### 2.1.2 Pesticide, Herbicide, and Rodenticide

To be compliant with the Order, all pesticides, herbicides and related materials (e.g., fungicides) must be used and applied consistent with product labeling. Pesticide and herbicide storage and

November 2019 Elevated Solutions

use on the Project Site must be closely monitored and recorded. Landowner is required to keep records (logs) of the type, timing and volume of pesticides and herbicides used in your operations.

When present, pesticides and herbicides should be stored within enclosed buildings in such a way they cannot enter or be released into surface or ground waters. They should not be stored with petroleum products as they may be incompatible and could potentially react.

#### 2.2 Procedures for Storage, Mixing, and Application

#### 2.2.1 Irrigation Runoff

Irrigation water is applied to cultivation areas at agronomic rates, so runoff is not an issue.

#### 2.2.2 Spoils Management

All spoils generated by the operations are reused on site. All soil is contained in pots inside the greenhouse structures, covered with plastic, straw wattles placed around the perimeter, and amended each year after analysis. All dirt areas in the greenhouses that are exposed are covered in straw and perimeter of greenhouses have straw wattles.

#### 2.3 Procedures for Spill Prevention and Cleanup

To prevent nutrient leaching from cultivation areas, continue to plant dense cover crops in spent pots, holes and beds to enrich soil and lock up nutrients or; 1) fully tarp any exposed soils and growing mediums in beds, pots, holes or piles; or 2) move spent soils and amendments inside or under cover to temporarily store them during the wet season (November 1 – May 15). If dense cover crops cannot be kept alive, all planted areas should be tarped to protect them from rainfall, snowmelt and subsequent infiltration and leaching of nutrients. Winterize all cultivation areas and all disturbed areas on the Project Site by placing straw wattles with biodegradable wrapping on the downslope perimeter and/or by mulching/seeding any bare soil areas on cultivation sites.

All the necessary spill prevention and clean-up materials are on site and available in the immediate vicinity of storage area for petroleum and pesticide. Major spills should be addressed per actions described in Section 3.3 below.

## 3 PETROLEUM PRODUCT BPTC MEASURES

#### 3.1 Summary of Products Used

#### 3.2 Procedures for Storage, Mixing, and Application

All small fuel cans, generators, fuel tanks, gasoline powered garden equipment and any other items containing petroleum products in adequate secondary containment basins and store in a safe, covered, secure location (e.g. away from slopes and outside of riparian buffers). Generator and fuel storage area has concrete flooring, secondary containment, and a secure enclosed structure. Spill kits, fire extinguishers, and first aid kits are located at the pesticide and nutrient storage area as well as fuel and generator area.

#### 3.3 Procedures for Spill Prevention and Cleanup

If gas or oil is spilled, immediate attention will be taken to stop the spill by turning off valves or plugging the source of the leak. If the source is a tank or any other kind of container and it is punctured, a wooden plug or a bolt will be used to prevent further leaking. Spill kits and fire extinguishers are located at the fuel/generator shed and Oil/Petroleum storage area.

After stopping the spill, the contaminated soil will be removed from the ground and contained in a bucket, pail, or other non-permeable container. All soil that has visible oil stains or petroleum odor will be dug out and contained. The contaminated soil will be disposed of in accordance with state law.

After the cleaning process is finished, the employee must submit a report of the incident describing what was spilled and the amount, how the spill was cleaned, and the steps that will be taken to prevent future spills. Illustrations or diagrams should be included to show the contaminated area, the excavation of the soil, and the kind of waste that was created. The spillage event and corrective actions will be written down in the Field Sanitation Unit Service Log and kept in our records.

In general, the following clean-up steps will be performed:

- 1. Any affected material is immediately disposed of in a covered waste bin.
- 2. The contaminated area will be marked off with caution tape or string.
- 3. Signs in appropriate languages will be posted at the perimeter prohibiting entry to the contaminated area.
- 4. People and animals will be kept out until the area is sufficiently decontaminated.
- 5. Any solid waste still resting on the surface will be collected, shoveled up, and removed to the waste bin.
- 8. The spillage event and corrective actions will be written down in the Field Sanitation Unit Service Log and kept in our records.

# 4 TRASH/REFUSE AND DOMESTIC WASTEWATER BPTC MEASURES

#### 4.1 Trash/Refuse

All refuse is stored in trash containers in a secure location. It is important to utilize storage facilities which prevent animals from accessing or disturbing garbage or refuse. Garbage is removed from the property and hauled to approved County collection location at least once per month. All Trash is stored in a 10x10 secure enclosed structure.

### 4.2 Number of Employees, Visitors, or Residents at Site

Typically, two individuals would be working during production April-October. During peak harvest periods as many as 4 individuals may be working on the property in July through October.

#### 4.2.1 Human Waste

Human waste is directed from the residence to the existing permitted septic tank and leach field system approved by Humboldt County. Credo Ra will have the septic system serviced in the 2020 season and will service as needed.

## 5 WINTERIZATION BPTC MEASURES & SCHEDULE

The applicant should conduct the following activities prior to the onset of measurable rainfall:

- 1) Ensure that the cultivation areas are either tarped or planted with thick cover crop
- 2) Make sure that all cultivation related supplies and equipment are in a secure covered location per Sections 2-4 above
- 3) Roads are surfaced with rolling dips and out slope installed to prevent sediment delivery
- 4) Soil pile is covered with plastic and straw wattles are placed around the perimeter
- 5) Perform yearly maintenance on drainage features as applicable to reduce runoff concentration (i.e. handwork or small equipment work to maintain water bars, ditches, sediment catchment areas, etc.)
- 6) Project site is monitored monthly or after a significant rainfall event for any sign of sediment control failures.

#### 6 OTHER CULTIVATION SITE INFORMATION

Elevated Solutions has conducted significant assessment and planning at this site. Credo Ra currently has an interim permit with Humboldt County Planning Department and a Provisional License with the State of California for 12,150 SF of outdoor cultivation in greenhouse structures for the 2020 season.

#### 7 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information. I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Steve Doyle State Contractor # 1031712 Elevated Solutions

# Appendix A Biological Resources Technical Report

# Wetland Delineation Report

APN: 210-041-011

October 2019

Prepared For:

Credo RA, LLC

Permit Application No. 12215

Prepared By:



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#### 1.0 Introduction

#### 1.1 Purpose and Need

This document was prepared for Credo RA, LLC in response to a 6 May 2019 correspondence from the Humboldt County Cannabis Services Division requesting a wetland delineation for an area near a cultivation activity on the 160-acre property owned by Rados Milojkovic of Credo RA, LLC. The delineation was performed to evaluate the presence of jurisdictional wetlands and identify wetland boundaries within the study area. This report is based on the fieldwork performed on 16 October 2019.

#### 1.2 Project Description

Credo RA, LLC currently holds an interim permit for 12,105 ft² of existing mixed light cultivation under Humboldt County's Commercial Medical Marijuana Land Use Ordinance (CMMLUO). Credo RA, LLC has also obtained a provisional cannabis cultivation license for a Medium Mixed-Light Tier 1 license type (License No. PAL18-0000269) under California Department of Food & Agriculture (CDFA). The applicant is seeking a Conditional Use Permit (CUP) (Case No.: PLN-12215-CUP) to move forward with the project, on which this wetland delineation report is contingent.

# 2.0 Environmental Setting

#### 2.1 Project Location

The project is located approximately 2.46 miles south of a private drive south of State Hwy 36 in the Bridgeville area (Section 16, Township 1 North, Range 4 East) of Humboldt County, California (*Figure 1*). The project is located on a property at APN: 210-041-011 within the U.S. Geological Survey's (USGS) Larabee Valley 7.5-minute quadrangle map. The USDA Forest Service CALVEG ("Classification and Assessment with Landsat of Visible Ecological Groupings") system classifies the property and project area as Douglas fir (DFR). The parcel is zoned Timber Production Zone (TPZ) and classified as Timberland (T) under the current general plan.



Figure 1. Project Location (accessed on Google Maps)



#### 2.2 Soil, Topography, Hydrology

The soil complex of the project area is composed primarily of Hoagland-Chalkmountain-Pasturerock complex, 15 to 50 percent slopes (4412). These soils consist of very deep, well-drained soils formed in colluvium and residuum derived from sandstone and mudstone. The main component of this soil, the Hoagland series, is a gravelly loam typically found on southeast concave or convex positions on mountain slopes under Douglas-fir and Oregon white oak with a groundcover of western swordfern (*Figure 2*). The other geographically associated soils, the Chalkmountain and Pasturerock soil series, also consist of very deep, well drained soils formed in colluvium and residuum derived from sandstone and mudstone and found on similar landscape positions. The soil complex in the study area is not considered to be hydric.

These soils are thought to be located in areas which were previously grasslands and oak woodlands that have been invaded by Douglas-fir. Vegetation often associated with these soils include Douglas fir, tanoak, California black oak, Pacific madrone, California laurel, California huckleberry and western swordfern.



Figure 2. NRCS Soil Survey map of the subject property. The study area outlined in orange is composed primarily of the Hoagland-Chalkmountain-Pasturerock complex.



The study area is situated in a soft, open depression at the base of a hillside on a gently west facing aspect. The area is mapped as possessing high levels of instability in the Humboldt County GIS database. The study area is approximately 1,850 to 1,875 ft in elevation (*Figure 3*).

A perennial, non-fish bearing stream (Class II watercourse) runs approximately 600 ft west of the study area flowing north towards Little Larabee Creek. The area is in the Lower Van Duzen River watershed and the Hoagland Creek – Van Duzen River subwatershed<sup>1</sup>.

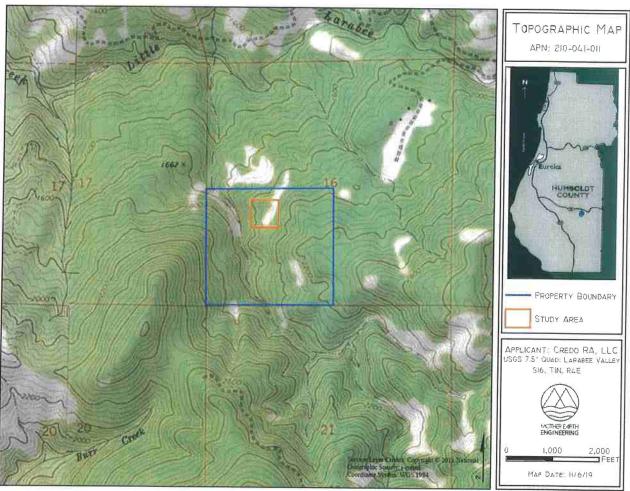


Figure 3. Topographic overview of subject property. Study area is outlined in orange.

# 3.0 Methods

Mother Earth Engineering staff conducted a site visit on 16 October 2019 to evaluate the presence of jurisdictional wetlands and identify wetland boundaries within the study area. Prior to the site visit, several sources of data were reviewed for any previously mapped wetlands in conjunction with soil type, weather records, and historic aerial photographs of the project area. The National Wetland Inventory (NWI) maps



<sup>&</sup>lt;sup>1</sup> Caltrans Water Quality Planning Tool available at: <a href="http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx">http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx</a>.

indicate a seasonally flooded, intermittent riverine wetland system along the Class II watercourse 600 ft west of the study area (*Figure 4*).



Figure 4. NWI map for Rados property. A seasonally flooded, intermittent Riverine wetland system is mapped along the Class II watercourse west of the study area. No other wetlands have been previously indicated.

The conditions on 16 October 2019 were overcast with partly cloudy skies. According to Oregon State University's PRISM Climate group<sup>2</sup>, the last rain event in the area occurred on 30 September 2019 with 0.53 inches of precipitation. Approximately three (3) field hours were spent conducting routine on-site methods as described in the *Corps of Engineers Wetlands Delineation Manual* (1987 Manual), and the *Regional* 

<sup>&</sup>lt;sup>2</sup> Oregon State University's Northwest Alliance for Computational Science and Engineering (NACSE) PRISM Climate Group data accessed: <a href="http://www.prism.oregonstate.edu/">http://www.prism.oregonstate.edu/</a>

October 2019

Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (USACE 2010; Regional Supplement).

Environmental criteria for wetlands, as defined in the 1987 Manual include:

- The prevalent vegetation is hydrophytic;
- · The soils present have been classified as hydric or possess reducing soil characteristics; and,
- The area is either permanently or periodically inundated at mean water depths less than or equal to 6.6 feet, or the soil is permanently or periodically saturated to the surface during the growing season.

The Routine Determination method outlined in the 1987 Manual was used in conjunction with procedures outlined in the Regional Supplement to identify and delineate wetlands within the project limits. Routine determinations involve simple, rapidly applied methods that result in sufficient qualitative data for identifying wetland and non-wetland areas.

The study area was walked and observed for evidence of potential wetland hydrology based on local topography and presence of hydrophytic vegetation. Data sample points were chosen based on site features for potential wetland areas and distinct upland areas to show contrast between wetland and upland field conditions.

The criterion for wetland vegetation is a dominance of hydrophytic species. Vegetation data at each sample point is identified by strata (tree, shrub, herbaceous and vine layer) and percent cover to determine dominant species. Each plant is identified to species level and classified as to whether or not they were wetland indicators in accordance to National Wetland Plant List (NWPL) 2016 Final Ratings.

Soils pits were examined at the sample points for evidence of redoximorphic features for hydric soil indications. The 1987 Manual's procedures were combined with the Natural Resources Conservation Service's (NRCS) definition of hydric soils presented in Changes in Hydric Soils of the United States and Field Indicators of Hydric Soils in the United States, Version 6.0 [United States Department of Agriculture (U.S.D.A.) 1995 and 2006, respectively]. Soil color was evaluated using *Munsell Soil Color Charts* (Munsell 2000).

The project was examined for field indicators of wetland hydrology. According to USACE (1987 and 2012), wetland hydrology consists of permanent or periodic inundation, or soil saturation to the surface during the growing season. If these indicators were present within the sample plots, the hydrology criterion was met.

Once the boundary of the wetland is determined from the data sampling effort, the edge of the wetland is flagged in the field and surveyed in order to produce a map of the wetland that occurs in the study area. Representative photographs of the sample points and wetland area were taken during the assessment (*Appendix A*).

A Garmin Rino 755t GPS was used for GPS points and tracking, and ArcMap 10.6.1 was used to create wetland maps and buffers.

## 4.0 Results

The study area can be described as an open depression area at the base of a hillside on a gently west facing Douglas Fir habitat type. One (1) jurisdictional wetland was identified within the study area, covering approximately 0.20 acres. The 0.20-acre wetland can be classified as a small, palustrine freshwater wetland (Cowardin *et al*, 1979) located in a depressional flat area (*Figure 5*).



# Mother Earth Engineering

Wetland Delineation Report - Credo RA, LLC

October 2019

Upon investigation, the area appears to receive water from hillside sheet flow and an undersized 12-inch diameter corrugated plastic culvert on an intermittent (Class III) watercourse. A Timber Harvest Plan (THP 1-98-434 HUM) of this area reveals that the THP recommended installation of a new culvert (no specific diameter) to "divert watercourse into flat natural wet area". A CDFW Lake and Streambed Alteration Agreement notification provided by Timberland Resource Consultants recommended a culvert upgrade to a minimum 18-inch diameter culvert.

In the upland areas (SP-1 and SP-3), the dry soils supported an overstory of Douglas-fir (*Pseudotsuga menziesii*), tanoak (*Notholithocarpus densiflorus*) and California laurel (*Umbellaria californica*). The shrub and sapling layer consisted of western swordfern (*Polystichum munitum*) and saplings of big leaf maples (*Acer macrophyllum*), tanoaks and California laurels. The herb and vine layers were sparse and contained species such as redwood sorrel (*Oxalis oregana*), Pacific blackberry (*Rubus ursinus*), and poison oak (*Toxicodendron diversilobum*).

The transition line into the wet area was distinct with a noticeable shift in vegetation composition. The dominant plant species identified at both wet sample areas (SP-2 and SP-4) consisted of California laurel, slough sedge (*Carex obnupta*), poison oak, woodfern (*Dryopteris expansa*) and great horsetail (*Equisetum telmateia*).

The soil pits were analyzed for the presence of hydric soil indicators including the presence of redoximorphic features in soils with chromas of 2 or less and chromas of 1 or less that are not attributed to organic matter. Both soil pits at SP-2 and SP-4 had loamy clay textures, similar in color, and contained redox concentrations. Soil pits at SP-1 and SP-3 did not contain any redoximorphic features.

The hydrology of the area was based on evidence of sediment deposits and an observation of surface water present in a man-made ditch. No identifiable ordinary high water mark was found as an outlet of the area. The boundary of this wetland was identified and flagged due to presence of hydrophytic vegetation, hydric soils, and hydrology, in addition to topography of the landscape. Adjacent uplands were distinguished from the wetland by lack of hydric soils, lack of hydrology, lack of hydrophytic vegetation and/or the presence of upland plants.



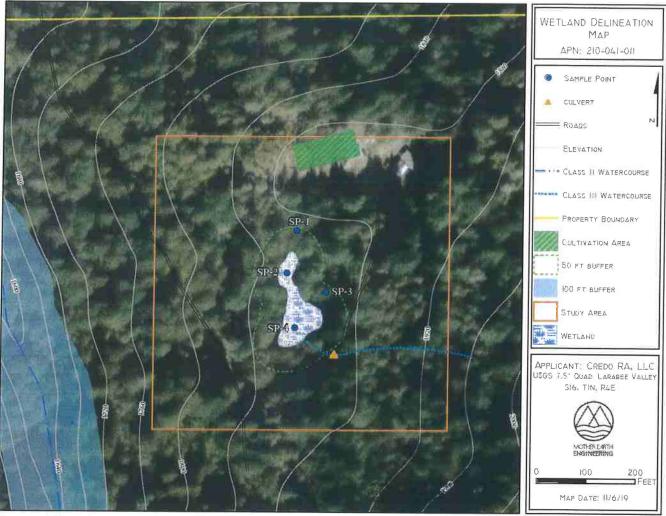


Figure 5. Map of wetland extent and boundaries within the study area. A 50 ft buffer designated around the wetland is outside cultivation activities.

# 5.0 Regulatory Background

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

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



#### 5.2 Regional Water Quality Control Board (RWOCB)

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

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

#### 5.3 California Department of Fish and Wildlife

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

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

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

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

# 5.4 Humboldt County-Streamside Management Area

"Streamside Management Areas" (SMAs) [Section 3432(5) of the Humboldt County 1984 General Plan] are defined in the Humboldt County General Plan (Page G-8) and include a natural resource area along both sides



of streams containing the channel and adjacent land. Updates to the SMA guidance for cannabis activities are defined in the Environmental Impact Assessment Biological Resources Section<sup>3</sup>.

Project applicants proposing development activities within a SMA or wetland areas are required to include a site-specific biological report prepared consistent with these regulations. The written report prepared by a qualified biologist is subsequently referred to CDFW for review and comment. If required, after agency review of the preliminary habitat assessment, protocol level surveys will be completed per recommendations by the Final Environmental Impact Report (FEIR) amendments to the Humboldt County Code Regulating Commercial Cannabis Activities<sup>4</sup>.

#### 5.5 Additional Laws and Policies

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

## 6.0 Conclusion and Discussion

Mother Earth Engineering staff conducted a site visit on 16 October 2019 to evaluate the presence of jurisdictional wetlands and identify wetland boundaries within the study area. This report is in response to a 6 May 2019 correspondence from the Humboldt County Cannabis Services Division requesting a wetland delineation for an area adjacent to cultivation activity on the 160-acre property owned by Rados Milojkovic of Credo RA, LLC.

Field observations were made in accordance with the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement: Western Mountains, Valleys, and Coast Region (Version 2.0). Upon site inspection, one (1) small 0.20-acre jurisdictional Palustrine Emergent wetland was identified within the study area. Palustrine Emergent Wetlands include all tidal and non-tidal wetlands dominated by persistent emergent vascular plants, emergent mosses or lichens, and all such wetlands that occur in tidal areas in which salinity due to ocean-derived salts is below 0.5 percent. The boundaries of the wetland were identified and flagged by the presence of hydrophytic vegetation, hydric soils, and hydrology, in addition to topography of the landscape. Adjacent uplands were distinguished from the wetland by lack of hydric soils, lack of hydrology, lack of hydrophytic vegetation and/or the presence of upland plants.

The subject wetland is designated with a 50 ft buffer around the delineation. It appears that all cultivation related activities are outside designated setbacks and buffers. All field pictures and data sheets for the wetland delineation area are included in *Appendix A* and *B* of this report. Additional consultation with agency staff including the California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers (USACE), Humboldt County and US Fish and Wildlife Service (USFW) will continue throughout the project application.

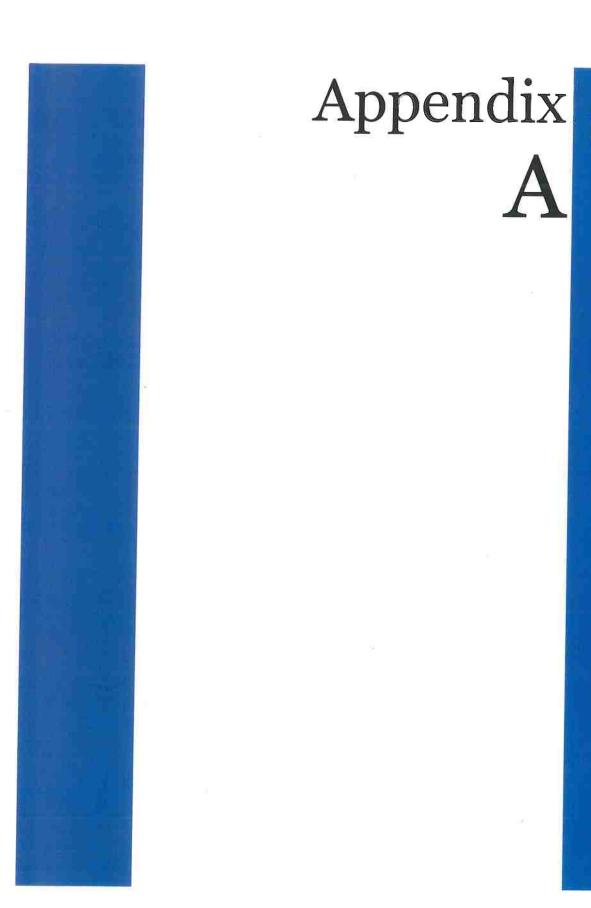
<sup>&</sup>lt;sup>3</sup> https://humboldtgov.org/DocumentCenter/View/58840/Section-311-Biological-Resources-Revised-DEIRPDF

<sup>&</sup>lt;sup>4</sup> Final Environmental Impact Report: Amendments to the Humboldt County Code Regulating Commercial Cannabis Activities. Prepared by Ascent Environmental. Accessed via https://humboldtgov.org/DocumentCenter/View/62689/Humboldt-County-Cannabis-Program-Final-EIR60mb-PDF. Accessed [September 2019]

#### References

- Baldwin, B.G., D.H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition. University of California Press, Berkeley.
- Cowardin/United States Fish and Wildlife Service, Classification of Wetlands and Deepwater Habitats of the United States, FWS/OBS 79/31, 1979.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List*: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X
- Natural Resources Conservation Service, Web Soil Survey, Humboldt County, Central Part, California (CA-600), <a href="http://websoilsurvey.nrcs.usda.gov/app/HomePage.html">http://websoilsurvey.nrcs.usda.gov/app/HomePage.html</a>.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: https://websoilsurvey.sc.egov.usda.gov/.
- United States Department of Agriculture, Natural Resources Conservation Service, Field Indicators of Hydric Soils in the United States, 2006.
- United State's Department of the Army Corps of Engineers, 2006. Draft Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region. J. S. Wakeley, R. W. Lichvar, and C. V. Noble, eds. Army Engineer Research and Development Center, U.S. Army Corps of Engineers (COE).
- United States Department of the Army Corps of Engineers, Wetlands Delineation Manual, Tech. Rep 4-87-1987.
- Webgis.co.humboldt.ca.us. (2019). ArcGIS Web Application. [online] Available at: http://webgis.co.humboldt.ca.us/HCEGIS2.0/ [Accessed November/6/2019].







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#### Picture No. 1

October 16, 2019

## Description:

Upland sample point SP-1 looking west.



#### Picture No. 2

October 16, 2019

#### Description:

North edge of wetland looking south.



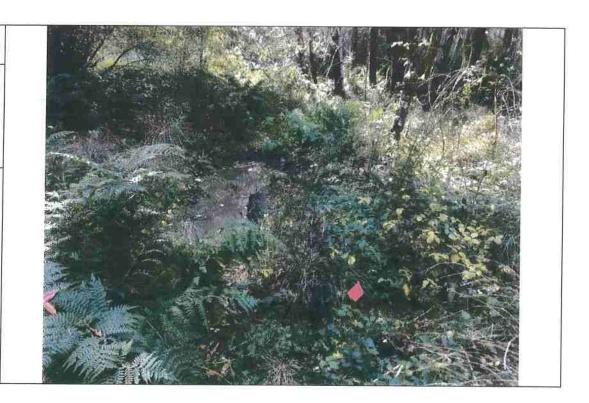


#### Picture No. 3

October 16, 2019

#### Description:

View of wet area sample point SP-2 marked by red flag looking south.



#### Picture No. 4

October 16, 2019

#### Description:

View of upland area sample point SP-3 looking south with eastern edge of wetland on the right side.



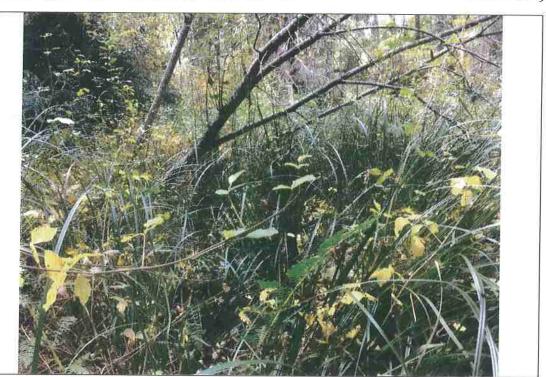


#### Picture No. 5

October 16, 2019

#### Description:

View of wetland area sample point SP-4 looking west. Area dominated by slough sedge, poison oak and willows.



#### Picture No. 6

October 16, 2019

#### Description:

Another view of the subject wetland on the eastern edge looking southwest.







# Appendix B



Data Forms

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Project/Site: Rados Site		City/Coun	tv: Bridge	eville, Humboldtsampling Date: SP=1 10/11
Applicant/Owner: Rados Hiloikavic		,	J	State: CA Sampling Point: 5P-1
Investigator(s): R. Okuyama		Section, T	ownship, R	lange: S16, T1N, R4E
				, convex, none): Concave Slope (%): <10
				Long: -123.7361/ Datum: WGS 84
Soil Map Unit Name: Hoagland - Charkmaint	ain-Past	werock	comole	NWI classification:
Are climatic / hydrologic conditions on the site typical for				
Are Vegetation, Soil, or Hydrology				"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology				needed, explain any answers in Remarks.)
			•	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes				
Hydric Soil Present? Yes	No X		he Sample	
Wetland Hydrology Present? Yes	No _X	Wit	hin a Wetla	nd? Yes No AR
Remarks:				
				†
VEGETATION – Use scientific names of pla	ants.			1913115
Tree Stratum (Plot size: 15 \$4	Absolute % Cover		t Indicator	Dominance Test worksheet:
1. Pseudotsuga menziesii			Fac U	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2. Notholithograns densiflores		Ma		, and a second second
3. Umbellaria californica			FAC	Total Number of Dominant Species Across All Strata: (B)
4		74.5		D
2010	_ 50	= Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: 10 Ct) 1. Poly Stichum munitum	36	V	6-11	Prevalence Index worksheet:
2. Umbellaria californica	15	<del></del>	E.	Total % Cover of: Multiply by:
3.			1.84	OBL species x 1 =
4.			Communication and the second	FACW species x 2 =
5,				FAC species x 3 =
50	50	= Total Co	ver	FACU species x 4 =
Herb Stratum (Plot size: 5 f4)	30	.1	t	UPL species x 5 =
1. Oxalis oregano 2. Texicodendron diversilabrum		<del></del>	Fac.U	Column Totals: (A) (B)
3. Rubus wasing		No	Fac V	Prevalence Index = B/A =
4	- 10	100	- FULLY	Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
5,				3 - Prevalence Index is ≤3.0¹
7				4 - Morphological Adaptations (Provide supporting
8.				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation (Explain)
11				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 5 P4 )	55_=	Total Cov	er	25 prosent, amos distance of propientalic.
1				Birdana bi dia
2.				Hydrophytic Vegetation
Q 201		Total Cove	er	Present? Yes No
% Bare Ground in Herb Stratum				
Remarks:				

Ph.	~	4	

Comparison   Com	Depth (inches) Color (	Matrix moist)	%	Color (moist)	ox Feature:		1 2	-	
Type: C=Concentration. D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  *Location: PL=Pore Lining, M=Matrix, price Soft Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histos (A)  Histos (A)  Histos (A)  Sardy Redox (S5)  Slack Histor (A3)  Hydropen Sulfide (A4)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Sandy Mucky Minrar (S1)  Depleted Matrix (F3)  Redox Dark Surface (F7)  Watrice Watrice (Layer (if) resent):  Type:	54 4:	JIII	-	COIOI (MOIST)	%	Type'	Loc <sup>2</sup>	Texture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  *Location: PL=Pore Lining, M=Matrix, vidric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosci (A1)  Saray Redox (S5)  Histo Epipedon (A2)  Stripped Matrix (S6)  Ellack Histo (A3)  Loarny Mucky, Mineral (F1)  Loarny Mucky, Mineral (F1)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Derix (F2)  Redox Dark Surface (F12)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (F3)  Depleted Derix Surface (F7)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (F3)  Depleted Derix Surface (F7)  Redox Depressions (F8)  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydricolgy must be present.  *Indicators of hydrophytic vegetation and wetland hydrology must be present.  *Indicators of hydrophytic vegetation and wetland hydrology indicators.  *Indicators of hydrophytic vegetations of hydrophytic vegetations of hydrophytic vegetation and wetland hydrology indicators.  *Indicators of hydrophytic vegetations of hydrophytic vegetations of hydrophytic vegetations of hydrophytic vegetations.  *Indicators of hydrophytic vegetations of hydrophytic vegetations of hydrophytic vegetations.  *Indicators of hydrophytic vegetations			-			-		· ·	0.7.13
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Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Histosol (A2) Stripped Matrix (S6) Black Histo (A3) Loarny Mucky Mineral (F1) (except MLRA 1) Loarny Mucky Mineral (F1) Sandy Gleyed Matrix (F2) Sandy Gleyed Matrix (F3) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Depressions (F8)  Proper (F present): Type: N/A Depit (inches): Marks:  Depit (B1) Depit (B2) Back Water (A1) Begin (B1) By Mater Table (A2) Satturation (A3) Satturation (B2) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Sadjes (B1) Drive Session Water Table (C2) Satturation (A3) Satturation (A4) Presence of Reduced Iron (C4) Satturation (Visible on Aerial Imagery (B7) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Surface Soil Cracks (					-				
Histic Epipedon (A2) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Surface (A1) Loarny Gleyed Matrix (F2) Loarny Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Flock Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Strictle Layer (if present): Type: N/A Depleted Below Matrix (S4) Redox Depressions (F8)  Water Saline Hydrology Indicators:  Surface Water (A11) Mater-Stained Leaves (B9) (except MLRA 1) High Water Table (A2) Surface Water (A11) Water-Stained Leaves (B9) (except MLRA 1) High Water Table (A2) Saturation (A3) Sali Crust (B11) Water Marks (B1) Saturation (A3) Sali Crust (B11) Water Marks (B1) Sadiment Deposits (B2) Diff Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Secondary Indicators (2 or more required)  Water Marks (B1) Saturation (A3) Sali Crust (B11) Dry-Season Water Table (A2) Saturation (A3) Surface Soil Crust (B4) Presence of Reduced Iron (C4) Fron Deposits (B3) Surface Soil Cracks (B6) Surface Soil	ype: C=Concentration	D=Deple	tion, RM=F	Reduced Matrix, Ca	S=Covered	or Coated	d Sand Gr		tion: PL=Pore Lining, M=Matrix
Histic Ebipedon (A2) Black Histic (A3) Loarny Mucky Mineral (F1) (except MLRA 1) Loarny Mucky Mineral (F2) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Depleted Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Dark Surface (F8)  Problet (F7) Redox Dark Surface (F8)  Probleted Surface (F7) Redox Dark Surface (F8)  Probleted Surface (F		(whhirear	ne to all Li			d.)			
Black Histic (A3)			-						
Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A12) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Strictive Layer (if present): Type: N/A Depth (inches):  Depth (inches):  Mydric Soil Present? Yes No Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Salt Crust (B11) Saturation (A3) Salt Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Sandy Mucky Mineral (S1) Sediment Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Incurred and Arial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Irose Water Present? Yes No X Depth (inches):  Wetland Hydrology Indicators:  No X  Water Mark (B1) Deposits (B8) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface (B8)  Other (Explain in Remarks)  Pincitators of hydrophytic vegetation and wetland hydrology Present? Yes No X Depth (inches):  Wetland Hydrology indicators of hydrophytic vegetation and wetland hydrology Present? Yes No X Depth (inches):  Wetland Hydrology indicators of hydrophytic vegetation and wetland hydrology Present? Yes No X Depth (inches):  Pinche Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:			-			lovent	BALL PLA ALL		
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sedired Layer (if present): Type:  Depleted Dark Surface (F6) Redox Depressions (F8)  What Depleted Dark Surface (F6) Wetland Hydrology must be present. Unless disturbed or problematic.  Hydric Soil Present? Yes No V  Marks:  DROLOGY  Redox Depressions (F8)  Hydric Soil Present? Yes No V  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) MLRA 1, 2, 4A, and 4B) Mater Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Hydrogen Surfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Sediment Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Soll Crust (B4) Presence of Reduced Iron (C4) Spandadion Office (B4) Presence of Reduced Iron (C4) Spandadion Office (B4) Span		1)	_			except	IVILKA 1)	— Very S	Snallow Dark Surface (TF12)
Thick Dark Surface (A12)			A11)					Other	(Схрівін ін кетагкз)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Type: N / A	Thick Dark Surface (	A12)		Redox Dark Sui	face (F6)			3Indicators	of hydrophytic venetation and
Activity Clayer (if present):  Type:			-	_ Depleted Dark S	Surface (F7	")		wetland	hydrology must be present
Depth (inches):			(	Redox Depress	ions (F8)				
Depth (inches):		,							
PROLOGY  Island Hydrology Indicators:  nary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  Water-Stained Leaves (B9) (except  Water-Stained Leaves (B9) (mLRA 1,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Sourface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Recent Iron Reduction in Tilled Soils (C6)  FAC-Neutral Test (D5)  Sparsely Vegetated Concave Surface (B8)  Observations:  ce Water Present?  Yes  No  Depth (inches):  Table Present?  Yes  No  Depth (inches):  Table Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  No  W	31							22	
PROLOGY    Identify	Depth (inches):			_				Hydric Soil Pr	esent? Yes No
mary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algai Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Reduced Iron (C4)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  MLRA 1, 2, 4A, and 4B)  MLRA 1, 2, 4A, and 4B)  Mater Atable (A2)  MLRA 1, 2, 4A, and 4B)  Sail Crust (B11)  Aquatic Invertebrates (B13)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C2)  Saturation Visible on Aerial Imagery (C3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Prost-Heave Hummocks (D7)	andres.		1115		-0				
Secondary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Surface (B8)  Saturation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  To Depth (inches):  Table Present?  Yes No Depth (inches):  Drainage Patterns (B9) (MLRA 1, 4A, and 4B)  Aquatic Invertebrates (B13)  Drainage Patterns (B10)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C2)  Saturation Visible on Aerial Imagery (C2)  Saturation Visible on Aerial Imagery (C3)  Surface Soil Cracks (B6)  Surface Soi	Y-15	The state of the s	11.	*	19				
Surface Water (A1)	PROLOGY	afors:			19				
High Water Table (A2)  Saturation (A3)  Sall Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Dry-Season Water Table (C2)  Sediment Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Recent Iron Reduction in Tilled Soils (C6)  Surface Soil Cracks (B6)  Sundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  I Observations:  Table Present?  Yes No X Depth (inches):  Tatle Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Water Table (A2)  4A, and 4B)  AA, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C2)  Saturation Visible on Aerial Imagery (C2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No X Depth (inches):  Table Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY tland Hydrology Indic		required: ch	neck all that apply				Canada	
Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algai Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  I Observations:  ace Water Present?  Yes No Depth (inches):  Table Present?  Yes No Depth (inches):  Table Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Sediment Deposits (B1)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Dry-Season Water Table (C2)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C2)  Saturation Visible on Aerial Imagery (C3)  FAC-Neutral Test (D5)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No Depth (inches):  Table Present?  Yes No Depth (inches):  Table Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY tland Hydrology Indic nary Indicators (minimu		required; cr			(D0)			ry Indicators (2 or more require
Water Marks (B1)  Aquatic Invertebrates (B13)  Sediment Deposits (B2)  Dry-Season Water Table (C2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  Algai Mat or Crust (B4)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1) (LRR A)  Sparsely Vegetated Concave Surface (B8)  Depth (inches):  Table Present?  Yes No Depth (inches):  Tatlor Present?  Y	PROLOGY tland Hydrology Indic nary Indicators (minimu Surface Water (A1)	m of one i	equired; ch	Water-Stain	ed Leaves		ept	Wate	ry Indicators (2 or more required
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1) (LRR A)  Sparsely Vegetated Concave Surface (B8)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Cobservations:  Table Present?  Yes No Depth (inches):  Tation Present?  Yes No Depth (inches):  Tati	PROLOGY tland Hydrology Indic nary Indicators (minimu Surface Water (A1) High Water Table (A2)	m of one i	equired, ch	Water-Stain MLRA 1,	ed Leaves 2,4A, and		ept	Wate	ry Indicators (2 or more required restained Leaves (89) (MLRA A, and 48)
Driff Deposits (B3)	DROLOGY  Itand Hydrology Indices  nary Indicators (minimumon Surface Water (A1)  High Water Table (A2)  Saturation (A3)	m of one i	equired; ch	Water-Stain MLRA 1, Salt Crust (6	ed Leaves . <b>2, 4A, and</b> 311)	d 4B)	ept	Wate 4, Drain	ry Indicators (2 or more required or Stained Leaves (B9) (MLRA A, and 4B) hage Patterns (B10)
Algal Mat or Crust (B4)	DROLOGY  Itand Hydrology Indic nary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	m of one i	required; ch	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve	ed Leaves 2,4A, and 311) Intebrates (I	B13)	ept	Wate 4, Drain Dry-8	ry Indicators (2 or more required or-Stained Leaves (89) (MLRA A, and 4B) nage Patterns (B10) Season Water Table (C2)
Recent Iron Reduction in Tilled Soils (C6)	DROLOGY  Itand Hydrology Indices  Mary Indicators (minimulators (minimulators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)	m of one i	equired; cl	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve	ed Leaves 2,4A, and 311) rtebrates (f ulfide Odor	B13) (C1)		Wate  4/ Drain Dry-8 Satur	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7)	DROLOGY  Iland Hydrology Indices  Mary Indicators (minimus  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)	m of one i	equired; cl	Water-Stain MLRA 1, Sall Crust (E Aquatic Inve Hydrogen S Oxidized Rh	ed Leaves 2, 4A, and 311) Intebrates (If ulfide Odor izospheres	1 4B) B13) (C1) along Liv		— Wate  4,  — Drain  — Dry-8  — Satur  (C3) — Geom	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery norphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7)  Sparsely Vegetated Concave Surface (B8)  I Observations:  ace Water Present? Yes No X Depth (inches):  ration Present? Yes No X Depth (inches):  wides capillary fringe)  Wetland Hydrology Present? Yes No X Depth (inches):  wides Capillary fringe)  Wetland Hydrology Present? Yes No X Depth (inches):  Wetland Hydrology Present? Yes No X Depth (inches):  In the control of the	DROLOGY  Itand Hydrology Indice Mary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	m of one i	equired; ch	Water-Stain MLRA 1, Sall Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of	ed Leaves 2, 4A, and 311) Intebrates (If ulfide Odor izospheres Reduced Ir	14B) B13) (C1) along Liv	ing Roots	Wate 4.4 Drain Dry-5 Satun (C3) Geon Shall	ry Indicators (2 or more required or Stained Leaves (B9) (MLRA A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery morphic Position (D2) ow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8)  I Observations:  ace Water Present? Yes No _X Depth (inches):  Part Table Present? Yes No _X Depth (inches):  ration Present? Yes No _X Depth (inches):	DROLOGY  Itand Hydrology Indice Mary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algai Mat or Crust (B4) Iron Deposits (B5)	m of one i	equired; ch	Water-Stain MLRA 1, Sall Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron	ed Leaves 2, 4A, and 311) Intebrates (If ulfide Odor izospheres Reduced Ir	ti 4B)  B13) (C1) along Liv ron (C4) in Tilled S	ing Roots	Wate 4.4 Drain Dry-5 Satur (C3) Geon Shall FAC-	ry Indicators (2 or more required re-Stained Leaves (B9) (MLRA A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery morphic Position (D2) ow Aquitard (D3) Neutral Test (D5)
ace Water Present? Yes No _X Depth (inches):   Per Table Present? Yes No _X Depth (inches):   Praction Present? Yes No _X Depth (inches):   Wetland Hydrology Present? Yes No _X   Per Table Present? Yes No _X Depth (inches):   Wetland Hydrology Present? Yes No _X   Pribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY  Itland Hydrology Indices  mary Indicators (minimumons)  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)	m of one (		MLRA 1, Sall Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	ed Leaves 2, 4A, and 311) Intebrates (If ulfide Odor izospheres Reduced In Reduction i	d 4B)  B13) (C1) along Liv ron (C4) in Tilled S ants (D1) (	ing Roots	— Wate 4/ — Drair — Dry-8 — Satur (C3) — Geon — Shall — FAC- — Raise	ry Indicators (2 or more required or Stained Leaves (89) (MLRA A, and 4B) (Bage Patterns (B10) (Bage Patterns (B10) (Bage Patterns (B10) (
ration Present? Yes No X Depth (inches):	DROLOGY  Itland Hydrology Indices  nary Indicators (minimus  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algai Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on A	m of one ( ) )  5) erial Imag	ery (B7)	MLRA 1, Sall Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	ed Leaves 2, 4A, and 311) Intebrates (If ulfide Odor izospheres Reduced In Reduction i	d 4B)  B13) (C1) along Liv ron (C4) in Tilled S ants (D1) (	ing Roots	— Wate 4/ — Drair — Dry-8 — Satur (C3) — Geon — Shall — FAC- — Raise	ry Indicators (2 or more required or Stained Leaves (89) (MLRA A, and 4B) (Bage Patterns (B10) (Bage Patterns (B10) (Bage Patterns (B10) (
ration Present? Yes No X Depth (inches):	DROLOGY  Itland Hydrology Indices  nary Indicators (minimumon of the content of t	m of one ( ) )  5) erial Imag	ery (B7)	MLRA 1, Sall Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	ed Leaves 2, 4A, and 311) Intebrates (If ulfide Odor izospheres Reduced In Reduction i	d 4B)  B13) (C1) along Liv ron (C4) in Tilled S ants (D1) (	ing Roots	— Wate 4/ — Drair — Dry-8 — Satur (C3) — Geon — Shall — FAC- — Raise	ry Indicators (2 or more required or Stained Leaves (89) (MLRA A, and 4B) (Bage Patterns (B10) (Bage Patterns (B10) (Bage Patterns (B10) (
ration Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X des capillary fringe)  ribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY  Itland Hydrology Indices  Inary Indicators (minimumon of the content of	m of one (  )  i)  i)  ii)  iii)  rial Imagnave Sur	ery (B7) face (B8)	Muter-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves 2, 4A, and 311) Intebrates (I ulfide Odor izospheres Reduced Ir Reduction i tressed Pla in in Remai	B13) (C1) along Liv ron (C4) in Tilled S ants (D1) (	ing Roots	— Wate 4/ — Drair — Dry-8 — Satur (C3) — Geon — Shall — FAC- — Raise	ry Indicators (2 or more required or Stained Leaves (89) (MLRA A, and 4B) (Bage Patterns (B10) (Bage Patterns (B10) (Bage Patterns (B10) (
ribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY  tland Hydrology Indices mary Indicators (minimumons) 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 A Sparsely Vegetated Co I Observations: ace Water Present?	m of one (  i)  ii)  iii)  rial Imag ncave Sur	ery (B7) face (B8)	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves 2, 4A, and 311) Intebrates (I ulfide Odor izospheres Reduced Ir Reduction i tressed Pla in in Remai	d 4B) B13) (C1) along Liv ron (C4) in Tilled S ants (D1) (	ing Roots	— Wate 4/ — Drair — Dry-8 — Satur (C3) — Geon — Shall — FAC- — Raise	ry Indicators (2 or more required or Stained Leaves (89) (MLRA A, and 4B) (Bage Patterns (B10) (Bage Patterns (B10) (Bage Patterns (B10) (
	DROLOGY  tland Hydrology Indic mary Indicators (minimu) 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 A Sparsely Vegetated Co I Observations: ace Water Present? er Table Present? ration Present?	m of one (  i)  i)  ii)  iii)  real Imagencave Sur  Yes Yes	ery (B7) face (B8) No No	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen St Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves 2, 4A, and 311) Intebrates (fulfide Odor izospheres Reduced In Reduction i tressed Pla in in Remai	H 4B)  B13) (C1) along Liv ron (C4) in Tilled S ants (D1) (rks)	oils (C6)	Wate 4/ Drain Satun (C3) Geon Shall FAC Raise Frost-	ny Indicators (2 or more required or-Stained Leaves (B9) (MLRA A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) and Ant Mounds (D6) (LRR A) Heave Hummocks (D7)
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Project/Site: Kados Sitc		City/County: Bru	ageville, Humboldt Sampling Date: 10/16/10
Applicant/Owner: Rados Wileikovic			State: CA Sampling Point: SP-2
Investigator(s): R. Olamania	WWW	Section, Township	Range: SIL. TIV. PHE
Landform (hillslope, terrace, etc.); willstone - to	re	Local relief (conca	ave, convex, none): cancave Slope (%): 11
Subregion (LRR):	Lat: UC	2.46191	Long: -123, 7367 Datum: LWG3 &
Soil Map Unit Name: Hace land - Charle mous	rtain-Par	there exer a	aplex NWI classification:
Are climatic / hydrologic conditions on the site typical fo			
Are Vegetation, Soil, or Hydrology			(a)
Are Vegetation, Soil, or Hydrology			Are "Normal Circumstances" present? Yes No
			If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showing	sampling poi	nt locations, transects, important features, etc
Hydrophytic Vegetation Present?	. No	1- M C	
Hydric Soil Present?  Yes  Value of Mydrale and Present?	No	Is the Samp	
Wetland Hydrology Present? Yes  Remarks:	No		
TREMUNO.			
VEGETATION – Use scientific names of pl	ants.		
	Absolute	Dominant Indicat	or Dominance Test worksheet:
Tree Stratum (Plot size: 15 (4)	- 10 may 10 may 10 mm	Species? Status	Number of Dominant Species
1. limbeliaria californious		Y Fac	
2. Democtanga menzre sii		NO FAC	Total Number of Dominant
1			Species Across All Strata: (B)
*-	25	= Total Cover	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 10 (+)	.5	- Total Cover	That Are OBL, FACW, or FAC: 75 (A/B)
	18	4 Facu	Prevalence Index worksheet:
2. Equisebrus telmatera	30_	y fact	
3. Rubus ursinus		by Pac	FACW species x 2 =
4. tagica de destillobrare.			FAC species x3 =
5	58	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 5 0)		= Total Cover	UPL species x 5 =
1. Toxicodeudnon diversitabum	25	y Fac	Column Totals: (A) (B)
2. oxalis argana		y Facu	Prevalence index = B/A =
3. conex obnupta	20	4 Bbl	Hydrophytic Vegetation Indicators:
4.			1 - Rapid Test for Hydrophytic Vegetation
5			_
6			3 - Prevalence Index is ≤3.01
7			4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8 9			5 - Wetland Non-Vascular Plants <sup>1</sup>
10			Problematic Hydrophytic Vegetation (Explain)
11	=:=		Indicators of hydric soil and wetland hydrology must
. 52	55 =	Total Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 5	10	100 100 000	
Toxtoodendmen diversilabum	15	y rac	- Injurophyto
2		T. J. J. O.	Vegetation Present? Yes No
% Bare Ground in Herb Stratum3	_15=	Total Cover	
Remarks:			Life
		00	

 1 )	31	

Depth		27.7				COMMI	n the absence of in	idicators.)
(inches)	Matrix Color (moist)	% (	Redo Color (moist)	x Feature		1 2		
0-14	10 YR 3/1			<u>%</u>	Type'	Loc	Texture '	Remarks
0-1-1	10 18 3/1	00 /.	5YR 5/8	20	<u> </u>	PL	barry Cl	ay
			1111					
					2, 2			
	- 0-m.m.m.			2	E 2		THE STATE OF	***
	A7.				-			
	-							
								THOU
Type: C=Conc	centration, D=Depleti	on, RM=Red	uced Matrix, CS	=Covered	or Coated	Sand Gr	ains. <sup>2</sup> Location	: PL=Pore Lining, M=Matrix.
	licators: (Applicabl	le to all LRR:	s, unless other	wise note	d.)		Indicators for	Problematic Hydric Soils <sup>3</sup>
Histosol (A			Sandy Redox (S				2 cm Muc	k (A10)
_ Histic Epipe			Stripped Matrix (					nt Material (TF2)
Black Histic Hydrogen S	' '	10-11-0	oamy Mucky M	ineral (F1)	) (except N	LRA 1)	Very Shall	low Dark Surface (TF12)
	elow Dark Surface (A		oamy Gleyed N				Other (Ex	plain in Remarks)
	Surface (A12)		Depleted Matrix Redox Dark Surf				31. 0	
	ky Mineral (S1)		Depleted Dark S		7)		Indicators of h	nydrophytic vegetation and
	ed Matrix (S4)		Redox Depression		1		uniese diet	drology must be present, irbed or problematic.
estrictive Lay	er (if present):			4 -7			uniess disti	inped of problematic.
Type:			- 10				: e = x	ಕ್ಷಣ್ಣಿಸ್ತ ಕ್ರಾ
Depth (inches	s):		7 t mg	¥			Hydric Soil Prese	nt? Yes No
			2 <sup>(4)</sup> 10 <sup>2</sup>	259	42343			W.
				9			di 580	rg, or a grad
	ogy Indicators:		*				#: 5\$3	• 4, 24
etland Hydrolo imary Indicator	ogy Indicators: s (minimum of one re		Yes	. <u>.</u> , y)				
etland Hydrold imary Indicator Surface Wate	ogy Indicators: s (minimum of one re er (A1)		k all that apply) Water-Staine	d Leaves	(B9) (exce	pt	Secondary Ir	dicators (2 or more required
etland Hydrold imary Indicators Surface Wate High Water T	ogy Indicators: s (minimum of one re er (A1) (able (A2)		Water-Staine MLRA 1,	2, 4A, and		pt	Secondary Ir	ndicators (2 or more required ained Leaves (B9) (MLRA 1,
etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A	ogy Indicators: s (minimum of one re er (A1) (able (A2) 3)		Water-Staine MLRA 1, Salt Crust (B	2, <b>4A</b> , and 11)	d 4B)	pt	Secondary Ir	ndicators (2 or more required rained Leaves (B9) (MLRA 1, nd 4B)
etland Hydrolo mary Indicators Surface Wate High Water T Saturation (A Water Marks	ogy Indicators: s (minimum of one re er (A1) Table (A2) 3) (B1)		Water-Staine MLRA 1, Salt Crust (B Aquatic Inver	2, <b>4A</b> , and 11) tebrates (	d <b>4B</b> ) B13)	pt	Secondary Ir  Water-Si  4A, a  Drainage	idicators (2 or more required ained Leaves (B9) (MLRA 1, nd 4B) Patterns (B10)
etland Hydrolo mary Indicators Surface Water High Water T Saturation (A Water Marks Sediment Dep	ogy Indicators: s (minimum of one reer (A1) fable (A2) 3) (B1) posits (B2)		Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su	2, <b>4A</b> , and 11) tebrates ( Ifide Odor	B13)		Secondary Ir  Water-Si  4A, a  Drainage  Dry-Seas	ndicators (2 or more required rained Leaves (B9) (MLRA 1, and 4B) Patterns (B10) Son Water Table (C2)
etland Hydrolo mary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment Dep Drift Deposits	ogy Indicators: s (minimum of one reer (A1) Table (A2) 3) (B1) posits (B2) (B3)		Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su	2, <b>4A</b> , and 11) tebrates ( Ifide Odor	B13)		Secondary Ir  Water-Si  4A, a  Drainage  Dry-Seas	ndicators (2 or more required rained Leaves (B9) (MLRA 1, and 4B) Patterns (B10) Son Water Table (C2)
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etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Id Observation face Water Pre ter Table Present ludes capillary	pegy Indicators: s (minimum of one reser (A1) Table (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Image: etated Concave Surfans: sent? Yes ent? Yes ? Yes	ary (B7)ace (B8)No	Water-Staine MLRA 1, Salt Crust (B Aquatic inver Hydrogen Su Oxidized Rhi; Presence of f Recent Iron F Stunted or Sti Other (Explain  Depth (inches	2, 4A, and 11) tebrates ( lifide Odor cospheres Reduced li ressed Plan in Rema s): s):	d 4B) B13) (C1) I along Livir ron (C4) in Tilled So ants (D1) (L	g Roots ils (C6) RR A) Wetland	Secondary Ir  Water-Si  4A, a  Drainage  Dry-Seas  Saturatio  (C3) Geomorp  Shallow A  FAC-Neu  Raised A  Frost-Hea	radicators (2-or more required rained Leaves (B9) (MLRA 1, and 4B) Patterns (B10) Fon Water Table (C2) No Visible on Aerial Imagery (Cabic Position (D2) Aquitard (D3) Itral Test (D5) Int Mounds (D6) (LRR A) Pave Hummocks (D7)
etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Id Observation face Water Pre ter Table Present ludes capillary	pogy Indicators: s (minimum of one reser (A1) Table (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Image: estated Concave Surfaces as: esent? Yes ent? Yes ?	ary (B7)ace (B8)No	Water-Staine MLRA 1, Salt Crust (B Aquatic inver Hydrogen Su Oxidized Rhi; Presence of f Recent Iron F Stunted or Sti Other (Explain  Depth (inches	2, 4A, and 11) tebrates ( lifide Odor cospheres Reduced li ressed Plan in Rema s): s):	d 4B) B13) (C1) I along Livir ron (C4) in Tilled So ants (D1) (L	g Roots ils (C6) RR A) Wetland	Secondary Ir  Water-Si  4A, a  Drainage  Dry-Seas  Saturatio  (C3) Geomorp  Shallow A  FAC-Neu  Raised A  Frost-Hea	radicators (2-or more required rained Leaves (B9) (MLRA 1, and 4B) Patterns (B10) Fon Water Table (C2) No Visible on Aerial Imagery (Cabic Position (D2) Aquitard (D3) Itral Test (D5) Int Mounds (D6) (LRR A) Pave Hummocks (D7)
etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Id Observation face Water Pre ter Table Prese uration Present ludes capillary cribe Recorded	pgy Indicators: s (minimum of one reser (A1) Table (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Images etated Concave Surfans: sent? Yes ent? Yes fringe) d Data (stream gauge	ery (B7) ace (B8) No x No x No x e, monitoring	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi; Presence of f Recent Iron F Stunted or Sti Other (Explain Depth (inche Depth (inche)	2, 4A, and 11) tebrates ( lifide Odor cospheres Reduced li Reduction ressed Pla in Rema	B13) (C1) (along Living ron (C4) (c) (c) (c) (c) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	g Roots ils (C6) RR A) Wetland	Secondary Ir  Water-St  4A, a  Drainage  Dry-Seas  Saturatio  Geomory  Shallow A  FAC-Neu  Raised A  Frost-Hea	rained Leaves (B9) (MLRA 1, and 4B) Patterns (B10) Son Water Table (C2) In Visible on Aerial Imagery (Chic Position (D2) Aquitard (D3) Itral Test (D5) Int Mounds (D6) (LRR A) Pave Hummocks (D7)
etland Hydrolo imary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Ind Observation face Water Pre Iter Table Prese uration Present ludes capillary cribe Recorded	pgy Indicators: s (minimum of one reser (A1) Table (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial Images etated Concave Surfans: sent? Yes ent? Yes fringe) d Data (stream gauge	ery (B7) ace (B8) No x No x No x e, monitoring	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi; Presence of f Recent Iron F Stunted or Sti Other (Explain Depth (inche Depth (inche)	2, 4A, and 11) tebrates ( lifide Odor cospheres Reduced li Reduction ressed Pla in Rema	B13) (C1) (along Living ron (C4) (c) (c) (c) (c) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	g Roots ils (C6) RR A) Wetland	Secondary Ir  Water-St  4A, a  Drainage  Dry-Seas  Saturatio  Geomory  Shallow A  FAC-Neu  Raised A  Frost-Hea	radicators (2-or more required rained Leaves (B9) (MLRA 1, and 4B) Patterns (B10) Fon Water Table (C2) No Visible on Aerial Imagery (Cabic Position (D2) Aquitard (D3) Itral Test (D5) Int Mounds (D6) (LRR A) Pave Hummocks (D7)

Project/Site: Rados Site	City/0	County Brila	eville Humbri	d Bampling Date: 10/16/19
Project/Site: Rados Site  Applicant/Owner: Rados Milnjkovic  Investigator(s): Rokuyama		0	State:	Sampling Point: SP - 3
Investigator(s): R. Okuyama	Secti	on, Township, Ra	ange: SIE, TIN	RHE
Landform (hillslope, terrace, etc.): Will slove to	€ Loca	Il relief (concave.	convex, none):	ave Slope (%): 410
Subregion (LRR):				
Soil Map Unit Name: Hoog and - Chalkmant				
Are climatic / hydrologic conditions on the site typical for			1	
Are Vegetation, Soil, or Hydrology				
Are Vegetation, Soil, or Hydrology			eeded, explain any answ	
SUMMARY OF FINDINGS – Attach site ma				
Hydrophytic Vegetation Present? Yes				
Hydric Soil Present? Yes		Is the Sampled		
Wetland Hydrology Present? Yes	No /	within a Wetlan	nd? Yes	No
Remarks:				
VEGETATION - Use scientific names of pl	ants.			
) - O1		ninant Indicator	Dominance Test wor	ksheet:
Tree Stratum (Plot size: 15 ft )	% Cover Spe	-	Number of Dominant S	•
1. Preudotzuga wanzierii		/ facu	That Are OBL, FACW,	or FAC: (A)
2. Acer manophyllum		Fac	Total Number of Domin	
3. Unhellaria ratifornica 4. Votholithocarpus densiflorus	<u></u>		Species Across All Stra	eta: (B)
4. DOUDTHY DEWYNG ALMSIFICATE			Percent of Dominant S	
Sapling/Shrub Stratum (Plot size: (0 ft )		lai Covei	That Are OBL, FACW,	
1. Boystionen munitum	10 2	Facu	Prevalence Index wor	
2. Acer macrophyllum		o facu		Multiply by:
3. Notholithocarpus densiftures	2/	D NL		x 1 = x 2 =
4				x 2 =
5				x4=
Harts Charteres (Diet siege C n.)	<u> 5</u> = Tot	al Cover		x5=
Herb Stratum (Plot size: 5 (+ )				(A)(B)
2.		<del></del>		
3.			Hydrophytic Vegetation	= B/A =
4				Hydrophytic Vegetation
5.			2 - Dominance Tes	
6			3 - Prevalence Inde	
7				Adaptations (Provide supporting
8			data in Remarks	s or on a separate sheet)
9			5 - Wetland Non-Va	
10				phytic Vegetation <sup>1</sup> (Explain)
11				and wetland hydrology must
	= Tota	l Cover	be present, unless distu	inded of problematic.
Woody Vine Stratum (Plot size:)				
1			Hydrophytic Vegetation	
2.	= Tota	L Cover		No
% Bare Ground in Herb Stratum		Cover		
Remarks:				

Profile Desc	ription: (Describe	to the dept	h needed to docu	ment the	indicator	or confirm	the absence of ind	Sampling Point: 5P-3
Depth	Matrix	_		ox Feature		Ur COmmin	the absence of mid	ilcators.)
(inches)	Color (moist)	%	n 1		_Type'	Loc²	Texture	Remarks
0-12"	104R4/2	100	æ	247	=	-	Fire logue	
		-					1110 100 ms	7
-								
								The state of the s
				-				
			-0.2		*			
Tunni C-Cor	controling D-D-u(							
Hydric Soil In	ncentration, D=Deplications: (Applications)	elion, KM=h	educed Matrix, CS	S=Covered	or Coate	d Sand Gra		PL=Pore Lining, M=Matrix.
Histosol (A			Sandy Redox (8		a.)			Problematic Hydric Soils <sup>3</sup> :
Histic Epip	•		Stripped Matrix				2 cm Muck	
Black Hist		-	Loamy Mucky N		(except	MLRA 1)	Red Parent	waterial (TF2) w Dark Surface (TF12)
	Sulfide (A4)		Loamy Gleyed I					ain in Remarks)
	Below Dark Surface	(A11)	_ Depleted Matrix					an in remaine)
112	Surface (A12)		Redox Dark Sur				3Indicators of hy	drophytic vegetation and
	cky Mineral (S1) yed Matrix (S4)	******	_ Depleted Dark S	,	<sup>7</sup> )		wetland hydro	ology must be present,
Sandy Gle	ved Mairix (S4)		Wodny Danrage					
			_ Redox Depressi	ons (F8)		—г	unless distur	ped or problematic.
Restrictive La	yer (if present):		_ Redox Deplessi	ons (F8)			unless distur	oed or problematic.
Restrictive La	yer (if present):	-: 100	_ redux bepressi	ons (F8)				
Restrictive La	yer (if present):		- Nedox Depressi	ons (F8)	111		unless disturi	
Restrictive La Type: Depth (inche	yer (if present): es):		- Nedox Depressi	ons (F8)				
Restrictive Later Type:	yer (if present):		- Redox Depressi	ons (F8)				
Restrictive Later Type:	yer (if present): es):  Y elogy Indicators:	e required: cl					Hydric Soil Presen	1? Yes No
Restrictive Lag Type: Depth (Inche Remarks:  /DROLOGY /etland Hydro	yer (if present): es):  Y elogy Indicators: ors (minimum of one	required; cl	neck all that apply)		(BQ) (ave		Hydric Soil Presen	t? Yes No
Restrictive Lag Type: Depth (Inche Remarks:  /DROLOGY /etland Hydro rimary Indicate Surface Wa	yer (if present): es):  y elogy Indicators: ors (minimum of one ster (A1)	required; cl	neck all that apply)	ed Leaves			Hydric Soil Presen  Secondary Ind	t? Yes No
Type:	yer (if present): es):  y elogy Indicators: ers (minimum of one ster (A1) Table (A2)	required; cl	neck all that apply) Water-Stain MLRA 1,	ed Leaves 2, 4A, and			Secondary Ind	licators (2 or more required) ined Leaves (B9) (MLRA 1, 2 d 4B)
Type:	yer (if present):  es):  y  plogy Indicators:  ors (minimum of one otter (A1)  Table (A2)  A3)	required; cl	neck all that apply)  Water-Stain  MLRA 1,  Salt Crust (E	ed Leaves 2, 4A, and	d 4B)		Secondary Ind  Water-Sta  4A, and Drainage F	licators (2 or more required) ined Leaves (B9) (MLRA 1, 2 d 4B)
Type:  Depth (Inchesternarks:  DROLOGY  Tetland Hydro  Imary Indicate  Surface Wa  High Water  Saturation (  Water Mark	yer (if present):  es):  y  plogy Indicators:  ors (minimum of one otter (A1)  Table (A2)  A3)  s (B1)	required; cl	neck all that apply)  Water-Stain MLRA 1, Salt Crust (E Aquatic Inve	ed Leaves 2, 4A, and 311) rtebrates (	d 4B)		Secondary Ind Water-Sta 4A, and Drainage H	licators (2 or more required) ined Leaves (89) (MLRA 1, 2 d 4B) Patterns (B10) on Water Table (C2)
Type: Depth (Inche Remarks:  /DROLOGY /etland Hydro rimary Indicate _ Surface Wa _ High Water _ Saturation ( _ Water Mark _ Sediment Description	yer (if present):  es):  plogy Indicators: prs (minimum of one pter (A1) Table (A2) (A3) s (B1) eposits (B2)	required; cl	neck all that apply)  Water-Stain  MLRA 1,  Salt Crust (E  Aquatic Inve	ed Leaves 2, 4A, and 311) rtebrates (	d 4B) (B13) (C1)	ept	Secondary Ind  Secondary Ind  Water-Sta  4A, and Drainage F  Dry-Seaso Saturation	licators (2 or more required) ined Leaves (B9) (MLRA 1, 2 d 4B) Patterns (B10) on Water Table (C2) Visible on Aerial Imagery (C9)
Type:  Depth (Inche Remarks:  /DROLOGY /etland Hydro rimary Indicate Surface Wa High Water Saturation ( Water Mark Sediment Deposit	yer (if present):  es):  plogy Indicators:  ors (minimum of one)  oter (A1)  Table (A2)  (A3)  s (B1)  eposits (B2)  ts (B3)	required; cl	meck all that apply)  Water-Stain  MLRA 1,  Salt Crust (E  Aquatic Inve  Hydrogen St  Oxidized Rhi	ed Leaves 2, 4A, and 311) rtebrates ( ulfide Odor	d 4B) (B13) (C1) s along Liv	ept	Secondary Ind Water-Sta 4A, and Drainage I Dry-Seaso Saturation C3) Geomorph	licators (2 or more required) ined Leaves (89) (MLRA 1, 2 d 48) Patterns (B10) on Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2)
Type: Depth (Inche Remarks:  /DROLOGY /etland Hydro rimary Indicate _ Surface Wa _ High Water _ Saturation ( _ Water Mark _ Sediment Description	yer (if present):  es):  plogy Indicators:  ors (minimum of one)  ster (A1)  Table (A2)  (A3)  s (B1)  eposits (B2)  ts (B3)  Crust (B4)	e required; cl	meck all that apply)  Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen St Oxidized Rhi	ed Leaves 2, 4A, and 311) rtebrates ( ulfide Odor izospheres Reduced I	B13) (C1) s along Liveron (C4)	cept	Secondary Ind Water-Sta 4A, and Drainage F Dry-Seaso Saturation C3) Geomorph Shallow Ac	licators (2 or more required) ined Leaves (B9) (MLRA 1, 2 d 4B) Patterns (B10) on Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3)
Type: Depth (Inche Remarks:  DROLOGY  Tetland Hydro Timary Indicate Surface Wa High Water Saturation ( Water Mark Sediment Di Drift Deposit Algal Mat or	yer (if present):  es):  es):  plogy Indicators:  ors (minimum of one)  ster (A1)  Table (A2)  (A3)  s (B1)  eposits (B2)  ts (B3)  Crust (B4)  ls (B5)	required; ci	meck all that apply)  Water-Stain  MLRA 1,  Salt Crust (E  Aquatic Inve  Hydrogen St  Oxidized Rhi  Presence of  Recent Iron 1	ed Leaves 2, 4A, and 311) rtebrates ( ulfide Odor izospheres Reduced I	d 4B) (B13) (C1) s along Living (C4) in Tilled S	cept Ving Roots (	Secondary Ind Water-Sta 4A, and Drainage I Dry-Seaso Saturation C3) Geomorph Shallow Ac FAC-Neutr	licators (2 or more required) ined Leaves (89) (MLRA 1, 2 d 48) Patterns (B10) on Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5)
Type: Depth (Inche lemarks:  DROLOGY  Tetland Hydro Imary Indicate Surface Wa High Water Saturation ( Water Mark Sediment Deposit Algal Mat or Iron Deposit Surface Soil	yer (if present):  es):  es):  plogy Indicators:  ors (minimum of one)  ster (A1)  Table (A2)  (A3)  s (B1)  eposits (B2)  ts (B3)  Crust (B4)  ls (B5)		meck all that apply)  Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen St Oxidized Rhi	ed Leaves 2, 4A, and 311) rtebrates ( ulfide Odor izospheres Reduced I Reduction tressed Pla	B13) (C1) s along Liveron (C4) in Tilled S ants (D1)	cept Ving Roots (	Secondary Ind Water-Sta 4A, and Drainage F Dry-Seaso Saturation (C3) Geomorph Shallow Ac FAC-Neutr Raised Ant	licators (2 or more required) ined Leaves (B9) (MLRA 1, 2 d 4B) Patterns (B10) in Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) al Test (D5) t Mounds (D6) (LRR A)
Pestrictive Later Type:  Depth (Inche Remarks:  POROLOGY  Petland Hydrorimary Indicator  Surface Water Mark  Sediment Deposit  Aigal Mat or  Iron Deposit  Surface Solf  Inundation V	yer (if present):  es):  es):  plogy Indicators:  ors (minimum of one)  ster (A1)  Table (A2)  (A3)  s (B1)  eposits (B2)  ts (B3)  Crust (B4)  ls (B5)  Cracks (B6)	gery (B7)	meck all that apply)  Water-Stain  MLRA 1,  Salt Crust (E  Aquatic Inve  Hydrogen St  Oxidized Rhi  Presence of  Recent Iron to  Stunted or S	ed Leaves 2, 4A, and 311) rtebrates ( ulfide Odor izospheres Reduced I Reduction tressed Pla	B13) (C1) s along Liveron (C4) in Tilled S ants (D1)	cept Ving Roots (	Secondary Ind Water-Sta 4A, and Drainage F Dry-Seaso Saturation (C3) Geomorph Shallow Ac FAC-Neutr Raised Ant	licators (2 or more required) ined Leaves (89) (MLRA 1, 2 d 48) Patterns (B10) on Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5)
PROLOGY PROLOGY PROLOGY Petland Hydro Imary Indicate Surface Wa High Water Saturation ( Water Mark Sediment De Drift Deposit Algal Mat or Iron Deposit Surface Soli Inundation V Sparsely Ve	yer (if present):  es):  es):  y  logy Indicators:  ors (minimum of one oter (A1)  Table (A2)  A3)  ss (B1)  eposits (B2)  ts (B3)  Crust (B4)  ls (B5)  Cracks (B6)  //sible on Aerial Ima getated Concave St	gery (B7)	meck all that apply)  Water-Stain  MLRA 1,  Salt Crust (E  Aquatic Inve  Hydrogen St  Oxidized Rhi  Presence of  Recent Iron to  Stunted or S	ed Leaves 2, 4A, and 311) rtebrates ( ulfide Odor izospheres Reduced I Reduction tressed Pla	B13) (C1) s along Liveron (C4) in Tilled S ants (D1)	cept Ving Roots (	Secondary Ind Water-Sta 4A, and Drainage F Dry-Seaso Saturation (C3) Geomorph Shallow Ac FAC-Neutr Raised Ant	licators (2 or more required) ined Leaves (B9) (MLRA 1, 2 d 4B) Patterns (B10) in Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) al Test (D5) t Mounds (D6) (LRR A)
Type: Depth (Inche Remarks:  PROLOGY Petland Hydro rimary Indicate Surface Wa High Water Saturation ( Water Mark Sediment Di Drift Deposit Algal Mat or Iron Deposit Surface Solf Inundation V	yer (if present):  es):  es):  y  plogy Indicators:  ors (minimum of one oter (A1)  Table (A2)  (A3)  s (B1)  eposits (B2)  to (B3)  • Crust (B4)  ls (B5)  • Cracks (B6)  //isible on Aerial Ima getated Concave St  ons:	gery (87) urface (88)	meck all that apply)  Water-Stain  MLRA 1,  Salt Crust (E  Aquatic Inve  Hydrogen St  Oxidized Rhi  Presence of  Recent Iron I  Stunted or S  Other (Expla	ed Leaves 2, 4A, and 311) rtebrates ( ulfide Odor izospheres Reduced I Reduction tressed Pla in in Rema	B13) (C1) s along Liv fron (C4) in Tilled S ants (D1)	cept Ving Roots (	Secondary Ind Water-Sta 4A, and Drainage F Dry-Seaso Saturation (C3) Geomorph Shallow Ac FAC-Neutr Raised Ant	licators (2 or more required) ined Leaves (B9) (MLRA 1, 2 d 4B) Patterns (B10) in Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) al Test (D5) t Mounds (D6) (LRR A)
Type: Depth (Inche Remarks:  PROLOGY  Portional Hydro rimary Indicate Surface Wa High Water Saturation ( Water Mark Sediment D. Drift Deposit Algal Mat or Iron Deposit Surface Soli Inundation V Sparsely Vet	yer (if present):  es):  plogy Indicators: pres (minimum of one of the (A2)  (A3) s (B1) eposits (B2) ts (B3) Crust (B4) ts (B5) I Cracks (B6) //isible on Aerial Imagetated Concave Stons: resent?  Yes	gery (B7) urface (B8)	meck all that apply)  Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen St Oxidized Rhi Presence of Recent Iron I Stunted or S Other (Expla	ed Leaves 2, 4A, and 311) rtebrates ( ulfide Odor izospheres Reduced I Reduction tressed Platin in Rema	B13) (C1) s along Liv ron (C4) in Tilled S ants (D1)	cept Ving Roots (	Secondary Ind Water-Sta 4A, and Drainage F Dry-Seaso Saturation (C3) Geomorph Shallow Ac FAC-Neutr Raised Ant	licators (2 or more required) ined Leaves (B9) (MLRA 1, 2 d 4B) Patterns (B10) in Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) al Test (D5) t Mounds (D6) (LRR A)
Type:  Depth (Inche Remarks:  PROLOGY  Petland Hydro rimary Indicate Surface Wa High Water Saturation ( Water Mark Sediment D. Drift Deposit Algal Mat or Iron Deposit Surface Soil Inundation W Sparsely Vegeld Observation	yer (if present):  es):  plogy Indicators:  ors (minimum of one)  atter (A1)  Table (A2)  (A3)  s (B1)  eposits (B2)  ts (B3)  Crust (B4)  ts (B5)  Cracks (B6)  //sible on Aerial Ima  getated Concave St  ons:  resent? Yes  sent? Yes	gery (87) urface (88)	meck all that apply)  Water-Stain  MLRA 1,  Salt Crust (E  Aquatic Inve  Hydrogen St  Oxidized Rhi  Presence of  Recent Iron I  Stunted or S  Other (Expla	ed Leaves 2, 4A, and 311) rtebrates ( ilfide Odor izospheres Reduced I Reduction tressed Pla in in Rema	B13) (C1) s along Liv ron (C4) in Tilled S ants (D1)	Cept Ving Roots ( Goils (C6) (LRR A)	Secondary Ind Water-Sta 4A, and Drainage F Dry-Seaso Saturation (C3) Geomorph Shallow Ac FAC-Neutr Raised Ant	dicators (2 or more required) ined Leaves (B9) (MLRA 1, 2 d 4B) Patterns (B10) in Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A) ize Hummocks (D7)

Remarks:

Project/Site: Rados Sitc	City	County: Bridge	ville. Humboldt	Sampling Date:	10/16/19
Applicant/Owner: Rados Milakovic		đ	State: CA	Sampling Point	5P-4
Investigator(s): R. Okujama					
Landform (hillslope, terrace, etc.): Lillslope-toe					
Subregion (LRR):					
Soil Map Unit Name: Hongland - Chalkman					
Are climatic / hydrologic conditions on the site typical for					
Are Vegetation, Soil, or Hydrology			"Normal Circumstances"		2015
Are Vegetation Soil, or Hydrology			eeded, explain any answe		No
SUMMARY OF FINDINGS – Attach site ma		mpling point	locations, transects	i, important fe	atures, etc
Hydrophytic Vegetation Present?  Hydric Soil Present?  Yes  Yes		is the Sample	d Area		
Hydric Soil Present? Yes Wetland Hydrology Present? Yes		within a Wetla	nd? Yes √	No	
Remarks:					n 
VEGETATION – Use scientific names of pla	ants.				
Tree Stratum (Plot size: 15 ft- )	Absolute Do	minant Indicator	Dominance Test work	sheet:	
1. Umbellage Californicas		ecies? Status	Number of Dominant S		XII.
2. Salix Sconferiana			That Are OBL, FACW,	or FAU:	(A)
3.			Total Number of Domin		7,000
4			Species Across Ali Stra	(a)	(B)
	= To	otal Cover	Percent of Dominant Sp That Are OBL, FACW, of		///01
Sapling/Shrub Stratum (Plot size: 10 Pt )	9	. 5	Prevalence Index work		(A/B)
1. Toxico dendron directilataria		/ tac	Total % Cover of:		by
2. Dyopteris expansa		/ faew	OBL species		
3.			FACW species		
4			FAC species		
5	(DO = To	ital Cover	FACU species		
Herb Stratum (Plot size: 5 H)		ital Covel	UPL species	x 5 =	
1. Carex donunta	50	V 061	Column Totals:	(A)	(B)
2. Toxico dendron direkildom	30	1 Fac	Prevalence Index	= B/A =	
3			Hydrophytic Vegetatio		
			1 - Rapid Test for H		ion
5,			2 - Dominance Test	is >50%	
6			3 - Prevalence Inde	x is ≤3.01	
7	-4		4 - Morphological Ad	daptations <sup>1</sup> (Provide	e supporting
8				or on a separate sh	neet)
9			5 - Wetland Non-Va		
10.			Problematic Hydrop		
11	8D = Tota	10-	be present, unless distur	bed or problematic	ogy must
Woody Vine Stratum (Plot size:)	= lots	a Cover			
1	_		Hydrophytic		
2				✓_ No	
	= Tota	al Cover	Present? Yes	VNo	
% Bare Ground in Herb Stratum Remarks:					
remains.					
	20	5			

Depth	ription: (Describe	to the dep	th needed to docum	nent the in	dicator o	or confirm t	the absence of indicators.)
me de la ci i	Matrix			Features			* * * * * * * * * * * * * * * * * * *
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc <sup>2</sup>	Texture Remarks
0-18	LOYR 3/1	80	7.545/5/8	20	(	PL	loanny clary :
	*	, i					1 /
. 9		0 6	-		-		
		. Washington 6					
			war.				
							or and a second
			Reduced Matrix, CS=			Sand Grain	31
		able to all L	RRs, unless otherv		.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (/	•	974	Sandy Redox (S5)				2 cm Muck (A10)
Histic Epit	pedon (A2)	ş. <del>*</del>	Stripped Matrix (			N 75 4 4	Red Parent Material (TF2)
	Sulfide (A4)	-	<ul><li>Loamy Mucky Mi</li><li>Loamy Gleyed M</li></ul>		except N	ILKA 1)	Very Shallow Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Matrix (				Other (Explain in Remarks)
	(Surface (A12)		Redox Dark Surfa				<sup>3</sup> Indicators of hydrophytic vegetation and
	cky Mineral (S1)	120	Depleted Dark Surface (F7)				wetland hydrology must be present,
_ Calley will							
	yed Matrix (S4)	-	Redox Depressio	ns (F8)			unless disturbed or problematic.
Sandy Gle			Redox Depressio	ns (F8)			
Sandy Gle Restrictive La Type:	yed Matrix (S4) yer (if present):	-	Redox Depressio	ns (F8)			
Sandy Gle Restrictive La	yed Matrix (S4) yer (if present):		Redox Depressio	ns (F8)		and the	
Sandy Gle Restrictive La Type:	yed Matrix (S4) yer (if present):		Redox Depressio	ns (F8)	***	â	unless disturbed or problematic.
Sandy Gle Restrictive La Type: Depth (inch	yed Matrix (S4) yer (if present):		Redox Depressio	ns (F8)		ā.	unless disturbed or problematic.
Sandy Gle Restrictive La Type: Depth (inch	yed Matrix (S4) yer (if present):	18.84	Redox Depressio	ns (F8)		ł	unless disturbed or problematic.
Sandy Gle Restrictive La Type: Depth (inch	yed Matrix (S4) yer (if present):	-	Redox Depressio	ns (F8)	W.	ŀ	unless disturbed or problematic.
Sandy Gle Lestrictive La Type: Depth (inche	yed Matrix (S4) yer (if present): es):		Redox Depressio	ns (F8)	1:1	į	unless disturbed or problematic.
Sandy Gle Restrictive La Type: Depth (inche) Remarks:	yed Matrix (S4) yer (if present): es):	-	Redox Depressio	ns (F8)		è	unless disturbed or problematic.
Sandy Gle Restrictive La Type: Depth (inche) Remarks:  **DROLOG** Total Control of the con	yed Matrix (S4) yer (if present): es):  Y	e required;		ns (F8)	1.9	, i	unless disturbed or problematic.  Hydric Soil Present? Yes No
Sandy Gle Type: Depth (inche) emarks:  DROLOGY	yed Matrix (S4) yer (if present): es):  Y plogy Indicators: ors (minimum of on	e required;	check all that apply)	#0 28	R9) (exce		unless disturbed or problematic.  Hydric Soil Present? Yes No  Secondary Indicators (2 or more required)
Sandy Gle Lestrictive La Type: Depth (inche emarks:  **DROLOG** Tetland Hydro imary Indicate Surface Wa	yed Matrix (S4) yer (if present): es):  Y plogy Indicators: ors (minimum of on ater (A1)	e required;	check all that apply)  Water-Staine	d Leaves (I	200		unless disturbed or problematic.  Hydric Soil Present? Yes No  Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2)
Sandy Gle Restrictive La Type: Depth (inche remarks:  **DROLOG** Tetland Hydro rimary Indicate	yed Matrix (S4) yer (if present):  es):  yes  yes  yes  yes  yes  yes  yes  ye	e required;	check all that apply) Water-Staine MLRA 1, 3	d Leaves (I	200		unless disturbed or problematic.  Hydric Soil Present? Yes No  Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
Sandy Gle Lestrictive La Type: Depth (inche emarks:  DROLOGY  etland Hydro imary Indicate Surface Wa High Water Saturation (	yed Matrix (S4) yer (if present):  es):  y  y  y  y  y  y  y  y  y  y  y  y  y	e required;	check all that apply) Water-Staine MLRA 1, : Salt Crust (B	d Leaves (I 2, 4A, and	4B)		unless disturbed or problematic.  Hydric Soil Present? Yes No  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)
Sandy Gle estrictive La Type: Depth (inche emarks:  DROLOGY etland Hydro imary Indicate Surface Wa High Water Saturation ( Water Mark	yed Matrix (S4) yer (if present):  es):  plogy Indicators: pres (minimum of on ater (A1) Table (A2) (A3) is (B1)	e required; (	check all that apply) Water-Staine MLRA 1, 3 Salt Crust (B	d Leaves (I 2, 4A, and 11) tebrates (B	<b>4B)</b>		Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Sandy Gle estrictive La Type: Depth (inche emarks:  DROLOG etland Hydro imary Indicate Surface Wa High Water Saturation ( Water Mark Sediment D	yed Matrix (S4) yer (if present):  es):  plogy Indicators: present (Minimum of on ater (A1) Table (A2) (A3) (A3) (A6) (A6) (A6) (A6) (A6)	e required;	check all that apply)  Water-Staine  MLRA 1, 2  Salt Crust (B:  Aquatic Inver  Hydrogen Su	d Leaves (I 2, 4A, and 11) tebrates (B	(C1)	ept	unless disturbed or problematic.  Hydric Soil Present? Yes No  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)
Sandy Gle estrictive La Type: Depth (inche emarks:  DROLOG  etland Hydro imary Indicate Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi	yed Matrix (S4) yer (if present):  es):  plogy indicators: pres (minimum of on ater (A1) Table (A2) (A3) (A3) (A5) (B1) (B2) (B2) (B3)	e required;	check all that apply)  Water-Staine MLRA 1, 3 Salt Crust (Book and a continuous continuo	d Leaves (I 2, <b>4A</b> , and 11) tebrates (B lfide Odor (	4B) (13) (C1) along Livi	ept	wiless disturbed or problematic.  Hydric Soil Present? Yes No
Sandy Gle lestrictive La Type: Depth (inche emarks:  DROLOG  etland Hydro imary Indicate Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi	yed Matrix (S4) yer (if present):  es):  yer (if present):  yer (if present):  yes (if present):  yes (ses):  yes (ses): yes (minimum of on ater (A1) Table (A2) (A3) yes (B1) yes (B1) yes (B2) yes (B3) yer Crust (B4)	e required;	check all that apply)  Water-Staine MLRA 1,: Salt Crust (B: Aquatic Inver Hydrogen Su Oxidized Rhiz	d Leaves (I 2, <b>4A</b> , and 11) tebrates (B lfide Odor ( cospheres a Reduced Iro	4B) (C1) (along Livi on (C4)	ept ing Roots ((	wnless disturbed or problematic.  Hydric Soil Present? Yes No
Sandy Gle Lestrictive La Type: Depth (inche emarks:  DROLOG' letland Hydro imary Indicate Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi	yed Matrix (S4) yer (if present):  es):  y  y  y  y  y  y  y  y  y  y  y  y  y	e required;	check all that apply)  Water-Staine MLRA 1, Salt Crust (B' Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F	d Leaves (I 2, <b>4A</b> , and 11) tebrates (B liide Odor ( cospheres a Reduced Iro Reduction in	4B) (C1) along Livi on (C4) Tilled So	ept ing Roots (Coils (Co)	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)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Sandy Gle estrictive La Type: Depth (inche emarks:  DROLOG' etland Hydro imary Indicate Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi	yed Matrix (S4) yer (if present):  es):  y  plogy Indicators: pres (minimum of on ater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3		check all that apply)  Water-Staine MLRA 1, Salt Crust (B: Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	d Leaves (I 2, 4A, and 11) tebrates (B lifide Odor ( cospheres a Reduced Iro Reduction in ressed Plan	4B) (C1) along Livi on (C4) Tilled So	ept ing Roots (Coils (Co)	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)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Sandy Gle estrictive La Type: Depth (inche emarks:  DROLOG etland Hydro imary Indicate Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Inundation (	yed Matrix (S4) yer (if present):  es):  yer (if present):  yer (side (S4) yer (	agery (B7)	check all that apply)  Water-Staine MLRA 1, Salt Crust (B: Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	d Leaves (I 2, 4A, and 11) tebrates (B lifide Odor ( cospheres a Reduced Iro Reduction in ressed Plan	4B) (C1) along Livi on (C4) Tilled So	ept ing Roots (Coils (Co)	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)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Sandy Gle Lestrictive La Type: Depth (inche emarks:  DROLOGY Tetland Hydro imary Indicate Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Inundation ( Sparsely Ve	yed Matrix (S4) yer (if present):  es):  y  plogy indicators: pres (minimum of on ater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	agery (B7)	check all that apply)  Water-Staine MLRA 1, Salt Crust (B: Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	d Leaves (I 2, 4A, and 11) tebrates (B lifide Odor ( cospheres a Reduced Iro Reduction in ressed Plan	4B) (C1) along Livi on (C4) Tilled So	ept ing Roots (Coils (Co)	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)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Sandy Gle Restrictive La Type: Depth (inche Remarks:  POROLOGY Retland Hydro Retland H	yed Matrix (S4) yer (if present):  es):  y  plogy indicators: pres (minimum of on ater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	agery (B7) Surface (B8)	check all that apply)  Water-Staine MLRA 1, Salt Crust (Bound of Expression of Fourth of Explain of	d Leaves (I 2, 4A, and 11) tebrates (B lifide Odor ( cospheres a Reduced Iro Reduction in ressed Plan in Remark	4B) (C1) (along Livion (C4) (a Tilled Scatts (D1) (I	ept ing Roots (Coils (Co)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Sandy Gle Restrictive La Type: Depth (inche Remarks:  POROLOGY  Tetland Hydro Remary Indicate Surface Wat High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Inundation ( Sparsely Ve Bid Observati Restrictive La	yed Matrix (S4) yer (if present):  es):  y  logy Indicators: ors (minimum of on ater (A1) Table (A2) (A3) is (B1) leposits (B2) its (B3) r Crust (B4) ts (B5) I Cracks (B6) //sible on Aerial Imagetated Concave Sons: cresent?  Yes	agery (B7) Surface (B8)	check all that apply)  Water-Staine MLRA 1, 3 Salt Crust (B: Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron R Stunted or Sta	d Leaves (I 2, 4A, and 11) tebrates (B lifide Odor ( cospheres a Reduced Iro Reduction in ressed Plan n in Remark	4B) (C1) along Livi on (C4) a Tilled So this (D1) (I	ept ing Roots (Coils (Co)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Sandy Gle Restrictive La Type: Depth (inche Remarks:  POROLOGY  Vetland Hydro Vetland Hydro Vetland Hydro Vetland Hydro Vetland Hydro Vetland Hydro Surface Wa High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Inundation (	yed Matrix (S4) yer (if present):  es):  y  plogy Indicators: present (Minimum of on ater (A1) Table (A2) (A3) (A3) (A3) (A5) (A5) (A5) (A6) (A6) (A6) (A6) (A6) (A6) (A6) (A6	agery (B7) Surface (B8)	check all that apply)  Water-Staine MLRA 1, Salt Crust (Bound of Expression of Fourth of Explain of	d Leaves (I 2, 4A, and 111) tebrates (B lifide Odor ( cospheres a Reduced Iro Reduction in ressed Plan n in Remark	4B)  (C1)  along Livi on (C4)  Tilled Sc  ats (D1) (I	ept ing Roots (Cools (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 (CS)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)

# Appendix B

# **Grading Plan**

Retroactive Grading Permit to be developed after R-2 Study is completed.