HART RANCH FLOW ENHANCEMENT PROJECT

DRAFT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

JANUARY 2017

Submitted to:

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 601 Locust Street Redding, CA 96001

Prepared by:





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1.1 Introduction and Regulatory Guidance

This document is an Initial Study, with supporting environmental studies, which provides justification for a Mitigated Negative Declaration for the Hart Ranch Flow Enhancement Project (proposed project). This Mitigated Negative Declaration has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et seq.*, and the State CEQA Guidelines, 14 California Code Regulations Section 15000 *et seq.*

An Initial Study is conducted by a Lead Agency to determine if a project may have a significant effect on the environment. In accordance with CEQA Guidelines Section 15063, an EIR must be prepared if an Initial Study indicates that the proposed project under review may have a potentially significant impact on the environment. A Negative Declaration is a written statement prepared by the Lead Agency describing the reasons why the proposed project would not have a significant effect on the environment, and therefore would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a Negative Declaration shall be prepared for a project subject to CEQA when either:

- a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or
- b) The initial study identifies potentially significant effects, but:
 - (1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and
 - (2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

If revisions are adopted in the proposed project that would mitigate the effects to a point where no significant effects would occur in accordance with the CEQA Guidelines Section 15070(b), a mitigated negative declaration is prepared.

1.2 LEAD AGENCY

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." Pursuant to Fish and Game Code section 1602, Blair Hart (Permittee) notified the California Department of Fish and Wildlife (CDFW) on July 7, 2016 with the intent to substantially divert or obstruct the natural flow and modify the bed and/or banks of the Little Shasta River and Evans Spring in order to implement the proposed Project. CDFW has determined that the Project has the potential to substantially adversely affect existing fish and wildlife resources and therefore, a Lake or Streambed Alteration Agreement (LSAA) is required under Fish and Game Code section 1603. CDFW's issuance of the LSAA requires compliance with CEQA, and because no other discretionary public agency approvals have been required to date, CDFW has assumed Lead Agency status for the Project under CEQA.

Based on the criteria above, CDFW is the lead agency for the proposed Hart Ranch Flow Enhancement Project.

1.3 DOCUMENT ORGANIZATION

This document is divided into the following sections:

- 1 Introduction This section provides an introduction and describes the purpose and organization of this document.
- **2 Project Information** This section provides general information regarding the project, including the project title, lead agency and address, contact person, brief description of the project location, general plan, land use designations, zoning designation, identification of surrounding land uses, and identification of other public agencies whose review, approval, and/or permits may be required. Also provided is a checklist of the environmental factors that are potentially affected by the project. Finally, this section provides the environmental determination for the project, identifying whether a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report will be prepared for the project.
- **3 Project Description** This section provides a detailed description of the proposed project.
- **4 Environmental Checklist** This section describes the environmental setting/overview for each of the environmental subject areas, evaluates a range of impacts classified as "no impact," "less than significant," "less than significant with mitigation incorporated," and "potentially significant" in response to the environmental checklist. Each environmental checklist question is discussed and analyzed. Where appropriate, mitigation measures are identified to mitigate potentially significant impacts to a less than significant level.

Section 4, Environmental Checklist, is the analysis portion of this Initial Study. This section provides an evaluation of the potential environmental impacts of the project. There are eighteen environmental issue subsections within **Section 4.0**, one of which is the CEQA Mandatory Findings of Significance. The other environmental issue subsections consist of the following:

- 1. Aesthetics
- 2. Agricultural Resources
- 3. Air Quality
- 4. Biological Resources
- 5. Cultural Resources
- 6. Geology and Soils
- 7. Greenhouse Gas Emissions
- 8. Hazards and Hazardous Materials
- 9. Hydrology and Water Quality
- 10. Land Use and Planning

- 11. Mineral Resources
- 12. Noise
- 13. Population and Housing
- 14. Public Services
- 15. Recreation
- 16. Transportation/Traffic
- 17. Tribal Cultural Resources
- 18. Utilities and Service Systems
- 19. Mandatory Findings of Significance

Each environmental issue subsection is organized as follows:

The **Overview** summarizes the existing conditions at the regional, sub-regional, and local level as appropriate, and identifies applicable plans and technical information for the particular issue area.

The **Checklist Discussion/Analysis** provides a detailed discussion of each of the environmental issue checklist questions. The level of significance for each topic is determined by considering the predicted magnitude of the impact. Four levels of impact significance are evaluated in this initial study:

No Impact: No project-related impact to the environment would occur with project development.

Less than Significant Impact: The impact would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.

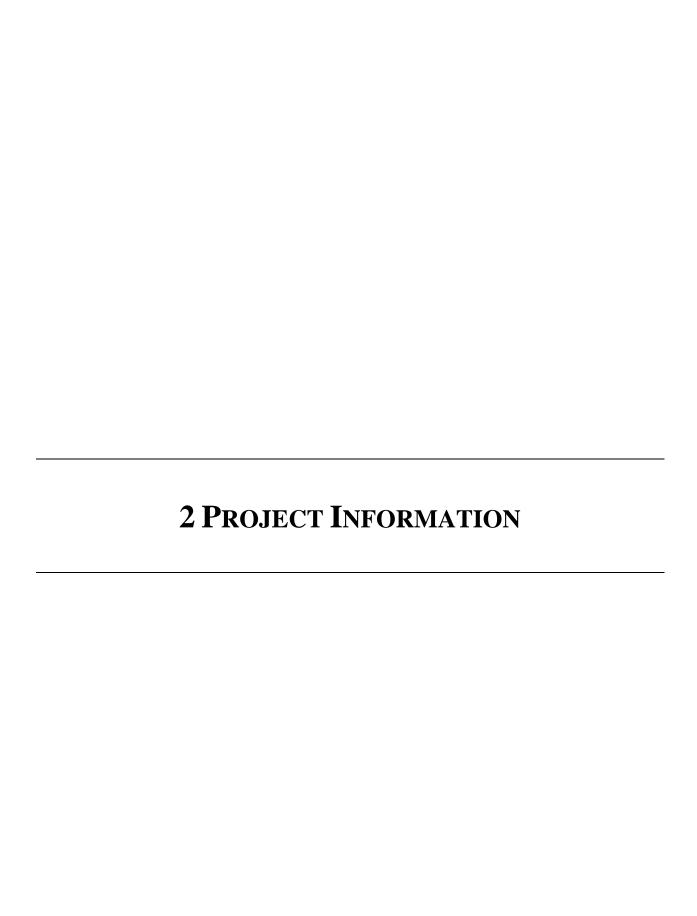
Less than Significant with Mitigation Incorporated: An impact that may have a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project" (CEQA Guidelines Section 15382). However, the incorporation of mitigation measures would reduce the project-related impact to a less than significant level.

Potentially Significant Impact: An impact that is "potentially significant" as described above, but for which mitigation measures cannot be immediately suggested or the effectiveness of potential mitigation measures cannot be determined with certainty. In such cases, an EIR is required.

Where appropriate, a **Mitigation Measures** section is included that lists mitigation measures for impacts identified as "Less than Significant with Mitigation Incorporated." These measures are designed to avoid, minimize, rectify, compensate for, reduce or eliminate identified potential impacts.

The **Conclusions** section summarizes the potential impacts and mitigation measures of the project on an environmental issue. If mitigation measures are recommended, the potential impacts after the implementation of these measures are assessed.

5 Special Studies and References - This section lists all the special studies and other documents either used or referred to in the Initial Study, and persons consulted during preparation of the Initial Study.



1. Project title: Hart Ranch Flow Enhancement Project

2. Lead agency name and address: California Department of Fish and Wildlife

601 Locust Street Redding, CA 96001

3. Contact person and phone number: Curt Babcock, Habitat Conservation Program Manager

(530) 225-2740

4. Project location: APN [# 039-170-310, 039-130-140, 039-170-270, 039-

170-060, 039-170-280, 039-130-100, 039-140-080].

Various Sections and Ranges, Little Shasta, CA 7.5 minute USGS quadrangle and Solomons Temple, CA 7.5

minute USGS quadrangle.

Latitude: Various, identified in Project Description Longitude: Various, identified in Project Description

5. Project sponsor's name and address: California Trout, Inc.

701 South Mt. Shasta Blvd. Mt. Shasta, CA 96067

6. General plan designation: Areas mapped Severe Septic Tank Limits, Flood Hazard,

Wildfire Hazard, Prime Agricultural Soils (General Plan Land Use and Circulation Element, maps 1 through 14). Further discussion included in Section 3, Project

Description.

7. Zoning: AG1B40 Agriculture, AG2B40 Agriculture.

8. Description of project: The proposed project implements numerous agricultural

water infrastructure improvements designed to improve water management opportunities for the Hart Ranch which result in enhanced flow in the Little Shasta River during critical coho migration periods, and maintenance of existing coho rearing habitat; improved fish passage in the Little Shasta River; and long-term operation and maintenance of

irrigation infrastructure for the Hart Ranch.

9. Surrounding land uses and setting:The proposed project is located in various locations

throughout the county (Figure 1, Project Location). The

project is surrounded by active agricultural lands.

10. Other public agencies whose approval may be required (e.g. permits, financing approval, or

 $participation \ agreement):$

CA Department of Fish and Wildlife (1600 Streambed Alteration Agreement), State Water Board (401 Permit), U.S. Fish and Wildlife Service, NOAA National Marine Fisheries Service, Section 404 and/or Section 27 permits from the U.S. Army Corps of Engineers, Regional Water Quality Control Board (401 Water Quality Certification, SWPPP), Siskiyou County Public Works Department, Siskiyou County Community Development Department

(building permit).

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is reduced to less than significant through the use of mitigation measures indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forestry Resources		Air Quality	
	Biological Resources		Cultural Resources		Geology/Soils	
	Greenhouse Gas Emissions		Hazards & Hazardous Materials	•	Hydrology/Water Quality	
	Land Use/Planning		Mineral Resources		Noise	
	Population/Housing		Public Services		Recreation	
	Transportation/Traffic	н	Tribal Cultural Resources		Utilities/Service Systems	
	Mandatory Findings of Significance					
DETER	MINATION: On the basis of this initial e	valuat	ion:			
	I find that the proposed project COL NEGATIVE DECLARATION will be	JLD	NOT have a significant effect	on the	e environment, and a	
•						
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.					
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.					
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.						
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	Conservation Program Manager					
Title			2			



3.1 PROJECT LOCATION AND OBJECTIVES

The proposed Hart Ranch Flow Enhancement Project (Project) is located within the north central portion of the unincorporated area of Siskiyou County, California. This Project will be sited entirely at the Hart Ranch, primarily south of the Little Shasta River and west of Harry Cash Road, with one component located upstream at the ranch's existing agricultural irrigation diversion on the Little Shasta River as illustrated in **Figure 1**, **Project Location Map**. The Hart Ranch, is privately owned and is operated primarily for beef cattle production, including extensive irrigation of forage and pasture. The Ranch lies within the Little Shasta River watershed and holds certain rights to Little Shasta River water, which are used with other water entitlements and groundwater for irrigation and livestock watering. The Project will be located on various parcels and the APN for each site is included under discussion of the Project Summary. All components of this Project are located on existing active agricultural lands which are zoned for agricultural use by Siskiyou County and are part of the Hart Ranch (Ranch).

The overall Project objectives are to (1) enhance flow in the Little Shasta River and maintain existing potential coho salmon rearing habitat upstream of the Hart diversion structure; (2) ensure long-term operation and maintenance of irrigation infrastructure for the Hart Ranch; (3) improve fish passage in the Little Shasta River; and (4) to continue ongoing agricultural operations using both existing and proposed infrastructure.

By improving agricultural water infrastructure, water management opportunities, and fish passage in the Little Shasta River, the Project intends to improve water quality and enhance potential coho salmon habitat in the Little Shasta River with a permanent instream dedication of 0.5 cfs, with an additional long-term dedication of up to 1.0 cfs and potential permissive dedication of the remaining water right by the Hart Ranch while maintaining viable agricultural lands.

As the Project implements a number of irrigation management opportunities and efficiencies, it will allow for additional flows to be dedicated instream. Therefore, the Project is related to the Draft Safe Harbor Agreement for Voluntary Habitat Enhancement Activities Benefiting Southern Oregon and Northern California Coast Coho Salmon (Oncorhynchus kisutch) on Private Lands in the Shasta Valley, Siskiyou County, California, by and between the Hart Ranch and the National Marine Fisheries Service (NOAA Fisheries, 2016) (Draft Hart Ranch SHA), which the Hart Ranch submitted to NOAA Fisheries in December 2016 and is currently pending approval. It is anticipated that NOAA Fisheries will approve the Draft Hart Ranch SHA and issue an Enhancement of Survival Permit, pursuant to 16 U.S.C. 1539, by the end of 2017 (subject to NEPA by NOAA Fisheries). After which, the Hart Ranch intends to seek and obtain a consistency determination from the California Department of Fish and Wildlife, pursuant to Fish and Game Code Sections 2089.6, 2089.22, and 2080.1.

3.2 PROJECT SUMMARY

This Project consists of various agricultural water infrastructure modifications and ongoing agricultural operations on the Hart Ranch along the Little Shasta River in the Shasta Valley. The Project impact area is limited to the footprint as identified in design engineering plus a 25-foot buffer on either side, and totals 41.66 acres of the working ranch. The Project consists primarily of linear alignments along proposed pipe alignments with associated water management infrastructure in existing irrigated pastures and uplands with occasional irrigation ditch crossings, and modification of the existing agricultural diversion structure which poses a partial barrier to fish passage in the Little Shasta River.

All infrastructure modifications are designed to improve water management, improve irrigation efficiencies, improve opportunities to utilize various water sources (river water, groundwater, spring water, or other water sources, etc.), reduce the amount of cold water resources being utilized for irrigation and stockwater, increase cold water returns to the river system, and improve fish passage. The components of this Project are designed to improve water quantity and quality in the Little Shasta River during critical migration times for coho salmon.

The Project will allow for an initial contribution up to 1.5 cfs of cold water instream through long-term dedication under California Water Code Section 1707 and potential Safe Harbor Agreement (SHA), currently under negotiation with NOAA Fisheries (NOAA Fisheries, 2016). The Project will result in up to 1.5 cfs of cold water permanently

dedicated instream using California Water Code Section 1707. This water will enhance year round flows starting at the Hart Diversion Structure (River kilometer 17.5) in the foothills reach of the Little Shasta River and could benefit the outmigration of juvenile coho salmon from April 1 through June 30 if and when coho salmon enter the foothills reach. This total instream dedication of up to 1.5 cfs will be achieved through a combination of on-farm water efficiency and water management improvements (0.5 cfs), and voluntary flow contributions (1 cfs) from existing priority water rights held by the Hart Ranch. The Ranch's remaining water right (19.804 cfs) will be modified to add instream use as an authorized purpose, and the entire right less the initial dedication of up to 1.5 cfs, will be available for potential permissive dedication as a result of the 1707 process. This will add fish and wildlife to all their water rights, allowing the water to be legally dedicated and protected for fish and wildlife benefit on an asneeded basis.

On-farm efficiency and water management improvements include 1) the construction of new stock watering facilities, 2) replacement of the Hart Ranch's failing Main Pipeline, 3) fish passage improvements consisting of relocation and replacement of the Hart irrigation diversion structure and recontour of a portion of the Little Shasta River to ensure fish passage, and 4) water diversion.

The Hart Ranch Flow Enhancement Project consists of the following elements, the locations of which are identified in **Figure 1**. All components are located on the Hart Ranch (41° 41′ 25.85″N latitude, 12° 22′ 51.11″W longitude).

- 1) Stockwater Improvement & Riparian Fencing/Planting: This project component is located on the Hart Ranch (APN 039-170-310, 039-130-140, 039-170-270, 039-170-060, 039-170-280, 039-130-100, 039-140-080) along Harry Cash Road south of the Little Shasta River. This component of the Project consists of (1) retrofitting an existing groundwater well; (2) new water storage tanks; (3) installation of underground PVC pipe and stockwater troughs; (4) installation of riparian fencing; (5) riparian planting along the Little Shasta River; and (6) cross fencing in existing pastures. Figure 2 identifies a site plan for this component of the Project.
- 2) **Main Pipeline Replacement:** This component of the Project includes replacement of the existing main canal earthen ditch and failing pipeline with underground PVC pipe with risers, valves, State Water Resources Control Board approved flow meter, and connection to existing groundwater wells, for improved water management opportunities and flood irrigation of the eastern portion of the Ranch. **Figure 3** identifies a site plan for this component of the Project. (APN 039-170-310, 039-170-150, 039-170-270, 039-170-290).
- 3) **Fish Passage Improvements:** This component of the Project is located along the Little Shasta River at river kilometer (RK) 18.5 and includes removal of the existing flashboard dam, a temporal barrier for juvenile and adult coho salmon; construction of approximately 105 feet of roughened channel with large boulder clusters and buttresses with a 2.5-3% grade; and replacement of the agricultural diversion for the Hart Ranch to continue diversion of appropriated water rights, within proximity to the Harry Cash Road bridge crossing of the Little Shasta River (APN 039-120-170) (41° 32' 21.55"N latitude, 122° 22' 9.40"W longitude). **Figures 4a** and **4b** identify site plans for this component of the Project.
- 4) Water Diversion: This component of the Project will allow for ongoing operation, maintenance, and repair of existing water diversion structures at the Little Shasta River Hart-Haight Diversion and the Evans Spring Diversion as permitted by CDFW under 1600 Permit and allow for voluntary instream flow contributions of existing decreed water rights at these locations as described in the Draft Hart Ranch SHA.

PROJECT FEATURES

STOCKWATER IMPROVEMENT & RIPARIAN FENCING/PLANTING

Existing Conditions

The northern portion of the Ranch is primarily dry-land, self-sustaining grazing area that is used extensively during the early portions of the year when forage production is supported by available soil moisture. Stockwater is currently provided in these fields by 10,700 feet of open, earthen ditch that flows from east to west along the southern edge of the dry-land grazing area until Dorris Hill, where it turns north and continues. Cattle drink directly out of the ditch or the Little Shasta River which is adjacent to and north of the ranch. As the ditch is not easily accessible within all

fields, and not accessible from some, this significantly reduces the utilization of the rain-fed forage of this acreage for grazing purposes.

A flow rate of approximately 1.5 cfs is typically continuously diverted from either the Little Shasta River or Evans Spring diversions to supply the ditch year round. The unlined ditch cross section, combined with the mild slopes and long ditch length, results in appreciable losses and requires a flow rate significantly higher than the consumption rate to maintain flow near the tail-end of the ditch. Unconsumed water either deep percolates, evaporates, leaves the ranch along the southwestern property boundary, or supports seasonal wildlife habitat near the base of Dorris Hill.

Proposed Improvements

The Project actions associated with the existing stockwater system consists of (1) retrofitting an existing groundwater well and pump with the addition of a new booster pump, regulating tank, and discharge piping; (2) three new 4,100 gallon water storage tanks; (3) installation of approximately 28,364 linear feet (5.37 miles) of underground PVC pipe connection to 20 stockwater troughs; (4) installation of approximately 7,500 linear feet of riparian fencing; (5) a new dedicated pipeline from the regulating tank with valve and flow meter to maintain existing wet meadow wildlife habitat at the eastern toe of Dorris Hill; (6) riparian planting along the Little Shasta River for a distance of approximately 7,500 linear feet; and (7) approximately 14,850 linear feet of steel post and barbed wire cross fencing in existing pastures. Figure 2 identifies a site plan for this component of the Project. This component will increase water use efficiency and provide a more reliable and adequate source of drinking water for the cattle on approximately 950 acres, hereinafter termed the "Northside". The system is designed to provide 35 gallons per day per cow-calf pair for a maximum of 225 cow-calf pairs. At peak demand, the system will operate at a flow rate of 11 GPM (0.02 cfs) to supply the troughs, with an additional 65 GPM (0.14 cfs) available to supply the consumptive needs of the seasonal wildlife habitat near the base of Dorris Hill. A total post-project flow rate of approximately 0.16 cfs will be required year round for the stockwater system, resulting in an anticipated, seasonally dependent, net water savings of +/- 1 cfs under full rights. The pumping system will be fitted with a flow meter to allow proper operation of the system and to provide monitoring of instantaneous and cumulative water use.

The stock watering system is composed of 20 strategically placed rubber-tire troughs that will be supplied by an ondemand pressure pipe network supplied from two new elevated storage tanks on Dorris Hill. Tanks are tentatively proposed to be round, High Density Linear Polyethylene tanks measuring 12 feet in diameter and approximately 12 feet tall. The tanks will be supplied with groundwater pumped from an existing well, and then released as needed to supply the troughs. Sufficient reserve storage capacity is provided in the tanks to maintain water supply to the troughs for two days in the event of pump failure, maintenance, or power outage. To the extent possible, the stockwater distribution pipeline will form a loop so that the tank can supply each trough from two directions and allow segments to be isolated without interrupting supply if maintenance is needed on troughs or certain pipeline sections.

Underground Pipe and Troughs

The Project will require approximately 3 miles of 2" diameter, and 1.3 miles of 1-1/2" diameter HDPE pipe installed using low-impact trenching methods; 1.1 miles of 4" to 6" PVC mainline pipe; related air valves, isolation valves, control valves, and all fittings. Pipelines will be buried with approximately 2.5 feet of cover and will be installed along existing ditches rather than in them. The new stockwater pipe will cross under Harry Cash Road (a County roadway) using conventional open trench excavation. Backfill, compaction, and paving will follow applicable County standards and requirements of the encroachment permit. The distribution system pipeline will also cross over the existing Montague Water Conservation District's Main Canal where the pipeline will transition to a heavy-walled steel pipe that will be suspended over the canal above the water surface.

The pipeline alignment will need to be cleared of vegetation to a width of approximately 8 feet to facilitate construction and site access. Total vegetation removal of approximately 5 acres is required for trenching, including the removal of pasture grasses and alfalfa, which will be re-seeded following construction. Rubber-tire troughs will have a 7" thick unreinforced concrete and crushed rock apron that extends 8 feet from the trough. Each trough installation will occupy an area of approximately 220 square feet. Backfill of pipe alignments will utilize material

from an on-ranch upland borrow pit and native soil. Any excess soil as a result of excavation will be stockpiled in uplands on site. All disturbed areas will be seeded and mulched following construction.

The elevated storage tanks will be installed on a newly constructed gravel pad on Dorris Hill that will require excavation, material placement, and compaction over an area of approximately 2,400 square feet. It is estimated that cut and fill quantities will be 1,500 cubic yards of material. A 14-foot-wide by 750-foot-long graveled road with a slope of approximately 8% will be constructed to access the tanks from the existing ranch road. All cut and fill will be balanced with no need to export material. Imported engineered fill or gravel for the pad will be from a permitted source or from the existing on-ranch borrow pit. **Appendix B** includes 75% design stage plans for the stockwater system improvements.

Construction is expected to last approximately 60 working days and will be planned for early fall (August-November) to avoid wet weather conditions.

Riparian Fencing & Planting

Upon completion of the stockwater system, approximately 7,500 linear feet of riparian fencing will be installed along both banks of the Little Shasta River and the riparian zone will be planted with native shrub and tree species (estimated 750 trees) within a ten (10) foot band of the river. The total area to be planted is approximately two (2) acres, with an estimated 750 trees. Riparian planting will be spaced 10 feet apart on average, with a total density of approximately 375 trees per acre. Fencing will be steel post and barbed wire, consistent with the California Salmonid Stream Habitat Restoration Manual, (CDFG, 2003) or similar specifications, with a setback of not less than 35 feet from the ordinary high water mark. Fencing will allow for existing riparian vegetation recovery and enhancement while facilitating proper management of cattle at the bank of the Little Shasta River. Disturbance will consist of clump plantings of willow, choke cherry, native plum, and other native species. Riparian plants will be installed in a manner that will ensure that the roots will have access to water when water tables are at their lowest. This method for installing riparian plants has proven to be successful in the upper Shasta River with an average success rate of around 60%. Because the hydrology in the Little Shasta is different than the upper Shasta River we expect a 50% survival of plantings after 5 years (which is about 85% survival annually). Riparian planting will typically occur during the winter months (ideally February and March) and planting will be sourced from native local cuttings. Additional Project fencing includes approximately 14,850 linear feet of cross fencing in existing pastures to enhance grazing management. Cross fencing will be steel post and barbed wire. Fencing will be substantially built with a design life of 50 years.

MAIN PIPELINE REPLACEMENT

Existing Conditions

The Ranch has a year-round right to approximately 2.35 cfs from the flow of Evans Spring where the water is diverted and conveyed in an unlined open earthen ditch, entering the ranch on its northeastern boundary. Upon entering the Ranch boundary, the water continues in an open ditch for approximately 2,500 feet, then into a 12" diameter steel pipeline for approximately 1,700 feet before transitioning back to an open ditch just south of the existing ranch road termed "the Lane". South of the Lane, the open ditch continues for 3,500 feet where it terminates. Collectively, the aforementioned pipe and ditch components are considered the "Main Pipeline System". The Main Pipeline System conveys water to flood irrigate six fields totaling 175 acres on the east-side of the Ranch, and is also used for stockwater via on-ranch ditches. Fields are either irrigated directly from the Main Pipeline System, or are irrigated from smaller "head ditches" which are supplied from the Main Pipeline System. The surface flow can also be supplemented using groundwater pumped from the Big Well and the Hart Well into the existing ditch system.

Although the combined surface water and groundwater sources provide approximately 5.4 cfs of supply, the open ditch infrastructure limits the use of the groundwater to only fields downhill of the inflow location, and seepage and spillage from the ditch system further diminish the efficiency of the irrigation and conveyance systems.

The existing steel pipeline is corroded, contains holes, and is not protected with sufficient soil cover in some locations, leading to damage from cattle traffic. Seepage tests performed by Davids Engineering in 2009 at three different locations in the existing eastside ditches measured seepage rates ranging from 0.06 to 0.42 cfs/day, which can be attributed primarily to wider than necessary channel sections (more wetted area), porous soil types, and rodent holes. Additionally, water is lost from the ditches through cuts or low sections in the embankments. The poor condition of the conveyance system reduces the efficiency of irrigation practices due to spillage and seepage losses that reduce the flow rate available for distribution to the field. These inefficiencies result in excessive water diversion and application rates in portions of fields in order to meet necessary irrigation needs for other portions of fields to maintain pasture growth and grazing capacity.

Proposed Improvements

The objective of the Main Pipeline replacement is to redesign the irrigation distribution system which serves the eastern portion of the ranch to more effectively and efficiently utilize water, which will provide for reductions in water use while simultaneously retaining or improving existing pasture production. The Project replaces a large portion of the Mainline System with buried PVC pipelines that more effectively and efficiently distributes available water supplies to fields through irrigation valves spaced at intervals along the pipelines. The *Little Shasta River Water Efficiency Study* prepared by David's Engineering estimates that irrigation efficiency improvements associated with piping the Mainline could reasonably be expected to result in a 10% reduction in applied water to the eastern portion of the Ranch. Average applied water for the six fields to be served by the Main Pipeline replacement is about 50", or about 690 acre-feet over a 6 month irrigation season. Estimating that irrigation efficiency improvements would decrease this by 10%, this results in a net savings of 70 acre-feet in a season or about 0.2 cfs on a continuous basis. Additionally, estimates of seepage reduction based on ponding tests performed on the Evans Ditch it is estimated that 0.22 cfs of seepage could potentially be recovered from installation of Phase I and Phase II of the Main Pipeline. Therefore, the Main Pipeline replacement will result in an estimated water savings of 0.42 cfs (Davids Engineering, Inc., 2012).

The Project is considered the "backbone" of the irrigation system on the Ranch, which allows for water source combination through interconnection of supply and distribution systems for flexible utilization of available water supplies to serve the Ranch needs. The Mainline System has the capability to deliver a maximum of 7.5 cfs for irrigation purposes by combining the surface water from Evans Spring and Little Shasta River and groundwater from the Evans well, Big well, and the Hart well. The Main Pipeline Project will not require that additional groundwater be pumped. The increased conveyance capacity (from an existing 5.4 cfs to 7.5 cfs) would facilitate additional instantaneous pumping to facilitate higher irrigation application rates on an less frequent basis that are foundational to improving irrigation efficiency; but the Main Pipeline replacement is not designed with additional annual pumping needs beyond what currently exist. Irrigation efficiencies achieved by the Main Pipeline replacement will add to instream dedications of water which are being negotiated as part of a Safe Harbor Agreement and are anticipated to be up to 1.5cfs (NOAA, 2016).

The Project will be accomplished in two Phases. Phase I will effectively replace approximately 3,850 feet of open ditch (850 feet of main canal, 3,000 feet of in-field head ditch), and 1,700 feet of existing steel pipe on the eastside of the Ranch. Approximately 500 feet of the existing steel pipe will be maintained for storm water management, and the remainder will be abandoned in place. Phase I of the Main Pipeline replacement extends the pipeline south to "The Lane" to provide direct irrigation distribution improvements to two primary pastures totaling 70 acres, allows the combining of four water sources (one surface water supply, Evans Spring; and three existing groundwater well sources), and improves conveyance efficiency to all pastures on the east-side of the Ranch. At its terminus, the Phase I pipeline section will discharge to the existing earthen ditch until Phase 2 is completed. **Appendix C** includes 100% design plans for Phase I of the Main Pipeline Replacement. The outflow will be armored with rock as necessary to reduce scour and dissipate flow. Phase II will extend the pipeline and riser system south of the Lane for another 3,500 feet to provide irrigation efficiency and conveyance improvements to the remaining 105 acres that compose the 'eastside' pastures terminating with an air valve at the base of Rabbit Hill. Phase I includes approximately 3,780 feet of PVC pipeline that range in diameter from 12" to 18", of which 2,875 feet contain vertical risers and adjustable irrigation valves spaced at 44 feet. The valves are positioned at the upper-end of each existing pasture and in each existing border strip so that each area can be irrigated by simply opening the valve.

Upon completion of Phase II, the outflow structure at the southern terminus of Phase I will be removed and Phase II pipeline will connect with the standpipe at the southern terminus of Phase I. Phase II has not been engineered, but design is anticipated to be similar in nature to Phase I.

The new PVC pipeline will connect with the existing Main Line Ditch approximately 1,700 feet downstream from the property line where irrigation water will be diverted into the pipeline via a new cast-in-place concrete pipeline heading structure within the ditch. The pipeline will then cross Harry Cash Road (a County roadway), connect with three (3) existing groundwater wells via new pipelines and fabricated steel standpipes, and parallel existing irrigation infrastructure (ditches and pipelines) which will be abandoned in place as practical. The pipeline will cross approximately three on-ranch gravel and earthen roads.

Three existing groundwater wells (Evans well, Hart well, and Big well) will be retrofitted with new PVC discharge pipelines that will connect to vertical steel standpipes located in-line with the new PVC mainline. The connection of the Evans well will require the pipeline to span the Montague Water Conservation District (MWCD) irrigation canal in a steel pipeline section. The standpipes are open-topped and allow for venting of air and also provide pressure regulation as inflows change and irrigation valves are adjusted. Other related infrastructure will include: a flow meter at the heading, butterfly valves, air vents, and 10-inch grazing valves to allow for continued flood irrigation of pastures. Pipelines will be buried and have a minimum of 2.5 feet of soil cover (30 inches). A working area approximately 14 feet wide will be cleared along the pipeline alignment to remove existing vegetation, and will be replanted following construction.

Construction of the mainline pipe will require medium-duty excavation equipment for trenching and installation of the pipelines, light earthmoving equipment for the clearing of the pipeline alignments, and hand crews for assembly of the pipelines, valves, and related appurtenances. Construction of the cast-in-place concrete heading structure will require medium-duty excavation equipment to excavate the 1.5 feet deep cutoff walls and to prepare the subgrade. The structure itself will require approximately 4 cubic yards of concrete, occupy approximately 70 square feet within the existing earthen channel, and an additional 150 square feet of existing earthen channel will be reshaped and transitioned to the existing structure. Existing barbed wire fencing may be removed as necessary during construction and replaced to pre-project conditions following construction. Backfill of pipe alignments and the new outlet control structure will utilize material from an on-ranch upland borrow pit and native soil. Any excess soil as a result of excavation will be stockpiled in uplands on site. All disturbed areas will be seeded and mulched following construction.

All staging of materials and equipment will be in upland areas utilized for ranch access and operation. Pipe material will be staged along the proposed alignment as it is delivered, and equipment staging areas will be arranged with the landowner to minimize disturbance to existing pasture areas and ranch operations. Access to the Project site will be arranged with the landowner, and vehicle and equipment impact areas will be limited to one staging site and to the pipeline alignments. Construction for each phase of the Main Pipeline replacement is expected to last approximately 45 working days and will be planned for the non-irrigation season(October-March).

FISH PASSAGE IMPROVEMENTS

Existing Conditions

The Hart Diversion Facility consists of a concrete diversion dam on the Little Shasta River located at RK 18.6, headgate, fish screen, fish bypass pipe, and a flow measurement device compliant with Senate Bill 88 along the Hart Ditch. The diversion provides water to the Hart ditch year round for irrigation and stockwater purposes for both the Hart and Cowley ranches pursuant to their existing legally adjudicated water rights. Flashboards are installed seasonally between March 1st and November 1st for diversion. The flashboards extend about 1 foot above the crest of the dam.

The diversion dam is located at the downstream end of a right trending bend and about 110 feet upstream of the Harry Cash Road Bridge across the Little Shasta River. Upstream of the dam, low to moderate flows are confined within the river by a 4 foot high berm along the right bank (looking downstream) and the hill slope along the left bank (**Figure 4a, Fish Passage Existing Conditions**).

The dam crest is 20 feet wide as measured perpendicular to the flow and about 6 feet long as measured along the direction of flow. Right of the dam crest (looking downstream) are two concrete walls that formerly contained a 4 foot wide fish ladder. The walls of the fish ladder extend downstream approximately 10.5 and 15 feet from the crest of the dam, respectively.

The dam impedes upstream movement of salmonids and native fishes. During low flows when flashboards are not in place, depths over the concrete sill do not meet National Oceanic and Atmospheric Administration (NOAA) and California Department of Fish and Wildlife (CDFW) fish passage criteria for adults and juvenile fishes and may delay or prevent fish from moving upstream. When flashboards are in place, the dam is a complete barrier to adult and juvenile salmonids.

Proposed Improvements

This component of the Project includes (1) removal of the existing concrete dam, fish screen, and old fish ladder walls; (2) construction of approximately 105 linear feet of roughened channel at about 3 percent grade that provides fish passage opportunities; (3) construction of a new cast-in-place concrete diversion structure with fish screen and fish return bypass that meets current NOAA and CDFW fish protection criteria to allow for the continued diversion of existing appropriated water rights to the Hart Ranch [2.130 cfs winter right; 17.428 cfs summer right] and Cowley Ranch [0.144 cfs winter right; 1.342 cfs summer right]; and (4) revegetation of the site. **Appendix A** includes summary of the Hart Ranch appropriated water rights as set forth in the 1932 Shasta River Judgement and Decree.

Site access is from Harry Cash Road on both the south and north of the Little Shasta River. Construction staging will be located in upland areas adjacent to the roadway north and south of the river. Precise location of these sites will be determined by the Project proponent (CalTrout), contractor, and landowners, and will be established in locations that minimize disturbance to valued vegetation and habitat consistent with all agency permit requirements. Staging areas will be located a minimum of 30 feet outside of the ordinary high water. Equipment will be refueled a minimum of 150 feet from the river. Spill kits will be maintained onsite and will be used to clean up any fuel, hydraulic fluid, and oil leaks or spills.

Prior to disturbance of the river channel, the active stream within the work area will be marked by the engineer. Stream diversion, dewatering, and aquatic organism capture and relocation activities as necessary, will be coordinated with CDFW and all necessary permits will be obtained prior to proceeding with this work. Handling and treatment of aquatic organisms will be conducted in accordance with CDFW and NMFS standards. Work will be conducted during the low flow period of June 15 to November 1. Stream flows during this period are anticipated to be less than about 3 cfs. Pumps will be used when necessary to remove ground water seepage into the isolated work area. Pumped groundwater seepage will be spread over existing floodplain areas and allowed to infiltrate into the ground without causing river turbidity to increase. River flows will be diverted around the roughened channel and diversion structure intake during construction, and will be returned to the newly constructed channel as soon as these portions of the work are complete. It is anticipated the Project reach will be dewatered for less than 6 weeks. Prior to grading activities the contractor will salvage and store existing vegetation cuttings and willow transplants to be replanted following the Project completion. Where possible, existing woody vegetation will be excavated with rootwad intact and immediately planted.

One to two excavators will be used to remove the existing concrete and steel structures and to excavate the channel for realignment. Concrete and steel will be disposed of at a licensed transfer station or landfill. Following excavation, roughened channel construction will consist of placement of downstream and upstream boulder buttress footer rocks and top rocks, placement of boulder clusters, placement of engineered streambed material, and seal of the roughened channel with silts, sands, and fine gravels to fill voids (See **Figure 4b** and **Appendix D**, Fish Passage Improvement Engineering). Rock for construction of roughened channel, rock bank protection, and rock buttresses will be imported, supplemented by existing rock salvaged on site. Rock placement for buttresses will be performed by placing individual rocks with at least 3 points bearing and will be made to form a stable mass within smaller rocks used to minimize void space. Filter fabric will not be utilized for construction of the roughened channel. Construction of the roughened channel is expected to take approximately one month.

The Project includes installation of log and boulder roughness along the outer channel reaches to add bank stability, hydraulic diversity, floodplain protection, and increase habitat heterogeneity. Anchoring of logs will be accomplished by drilling through logs, and placing epoxy cable and boulder anchors.

Following construction of the roughened channel the new diversion structure will be constructed. The concrete diversion structure will be cast-in-place and includes intake, fish screen, fish bypass return pipe, adjustable weir, water wheel and cleaning mechanism, and connection with the existing diversion conveyance ditch to allow for the continued diversion of existing appropriated water rights to the Hart Ranch and Cowley Ranch. A SWRCB compliant flow measuring device will be installed to measure and record diversion. The new diversion structure will be located out of the main channel, and is along the left bank, therefore not impeding flow or fish passage. Although the Musgrave diversion structure is located within proximity to the Project (a flashboard dam structure located 1,100 feet upstream) it provides partial temporal barrier to passage, and therefore, removal of the existing Hart Ranch flashboard dam, and replacement with an off-channel diversion structure will allow for fish passage to the foothills reach of the Little Shasta River [approximately 7 kilometers (km)], which currently provides high quality spawning and rearing habitat with gravel beds, deep pools, cold water temperatures, and a dense riparian canopy. The combined features of this reach provide high-quality habitat throughout the year, even during dry years (McBain & Trush, 2013).

The proposed diversion structure is approximately 8 to 14 feet wide, 125 feet long, and 4 to 9.5 feet high with appurtenances rising above the cast concrete structure. Concrete will be allowed to cure before water is returned to the channel and concrete wash water will be controlled, handled, and managed in accordance with applicable laws and permit requirements during construction. Excavation and fill of the slope to the east of the diversion structure will be required to match the new elevations as a result of the Project and slope drainage and revegetation are included in this project. Construction of the new diversion structure is anticipated to be complete within two months' time.

Approximately 15 alder and willow trees with diameter at breast height (dbh) less than 6 inches along the channel will be removed to accomplish channel roughening and realignment. Additional vegetation removal will include small riparian vegetation within the work area and approximately 20 junipers, to be used for large wood floodplain protection. Junipers will be removed from the Hart Ranch in upland areas and will be removed with their rootwad intact. Transport of large trees to the site, from upslope location, will likely be most effectively accomplished by flatbed trailer, backhoe, or excavator. Following completion of construction of the roughened channel and diversion structure, the site will be cleared of construction debris and erosion control measures will be installed. Planting will be completed in the fall and winter and in combination with additional erosion control measures which will consist of willow wattles, brush mattresses, willow transplants, and willow stakes.

WATER DIVERSION

Existing Conditions

The Hart Ranch currently holds decreed water rights on the Little Shasta River and streams and tributaries thereto consisting of maximum summer right (March to November 1) of 17.428 cfs at the Hart-Haight Diversion on the Little Shasta River and 2.376 cfs at the Evans Spring and Martin Spring for a total Ranch water right of 19.804 cfs. The Hart-Haight diversion rights are reduced to 2.130 cfs during the winter season (November to March 1), while the Evans Spring & Martin Spring rights are reduced to 2.355 cfs during the winter (**Appendix A**).

The Hart-Haight diversion serves both the Hart Ranch and the neighboring Cowley Family Ranch and was established prior to 1914 and is known to be in excess of 100 years old and is located on the Little Shasta River at RK 18.5. The existing diversion structure is as described above in the Fish Passage component of the Project. The Evans diversion solely serves the Hart Ranch and was established prior to 1914 and is known to be in excess of 160 years old. The existing Evans diversion structure consists of an earthen ditch along the toe of the spring.

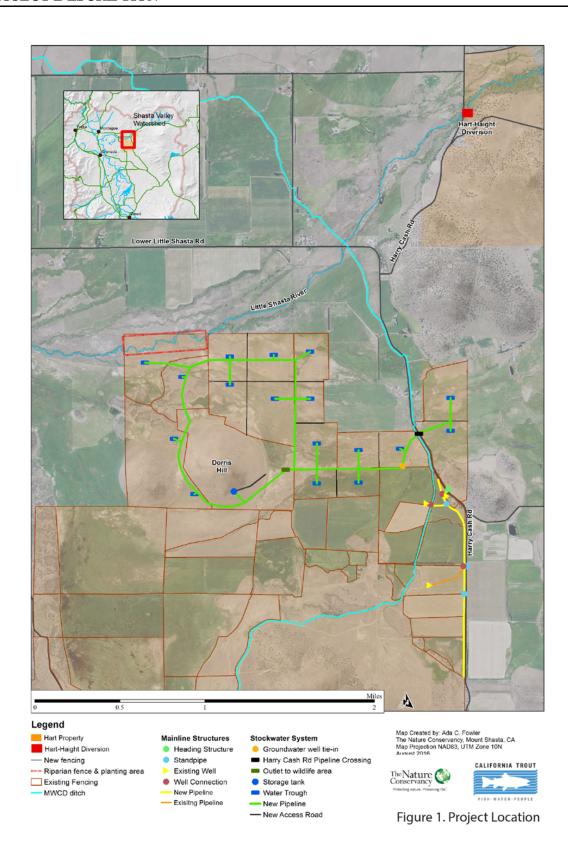
Water rights are utilized for irrigation and stockwater needs for the existing cattle ranch and are for immediate use and do not require the use of a permanent or temporary reservoir. In general, irrigation begins in late March to early April and is typically suspended in October, however, stock water rights allow the continued diversion of surface

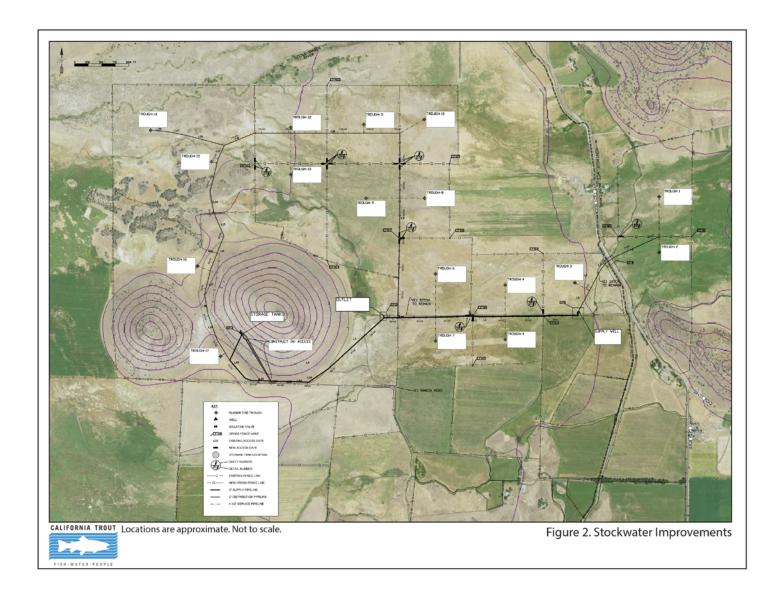
water throughout the winter for livestock drinking water. The Ranch currently exercises it's entire right for irrigation and stockwater as needed.

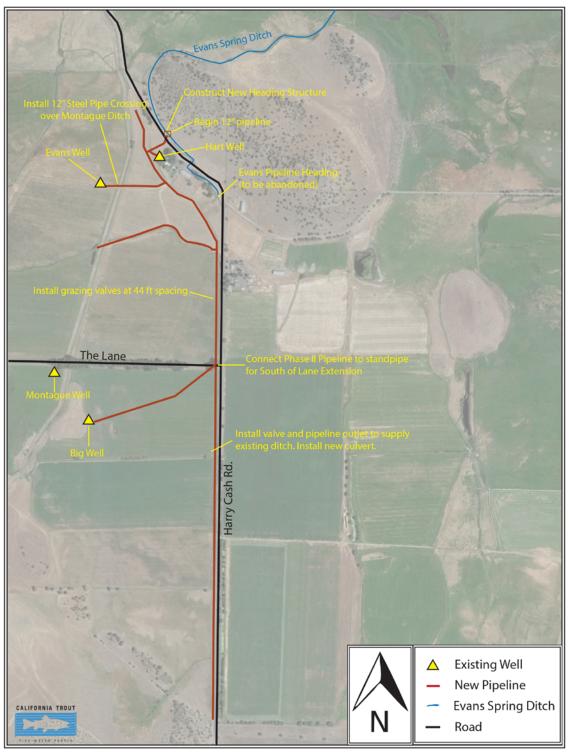
Proposed Improvements

The proposed project will allow for continued operation, maintenance and repair of the two existing diversions that serve the Hart Ranch consistent with 1600 Notification as received by CDFW on July 7, 2016. The existing Hart-Haight diversion (Notification No 1600-2016-0314-R1 Hart Cattle LLC and Cowley Family Ranch) will be reconstructed as discussed above in the Fish Passage component of the Project. No modifications are planned for the Evans Spring diversion structure beyond ongoing maintenance and repair (Notification No. 1600-2016-0315-R1, Hart Cattle LLC).

The Project will support the execution of the proposed Draft Hart Ranch SHA which is currently under negotiation and potential approval by NOAA Fisheries (subject to NEPA at time of approval) & consistency determination by CDFW once Federally approved. The Project once funded and completed will allow for an initial contribution up to 1.5 cfs of cold water dedicated instream through long-term dedication under California Water Code Section 1707 of the Hart's existing water right. This water will enhance year round flows starting at the Hart Diversion Structure (RK 18.5) in the foothills reach of the Little Shasta River and could benefit the outmigration of juvenile coho salmon from April 1 through June 30, if and when coho salmon enter the foothills reach. This total instream dedication of up to 1.5 cfs will be achieved through a combination of on-farm water efficiency and water management improvements (0.5 cfs), and voluntary flow contributions (up to 1.0 cfs) from existing priority water rights held by the Hart Ranch. The Ranch's entire water right (19.804 cfs) will be modified to add instream use as an authorized purpose, and the entire right less the initial dedication of up to 1.5 cfs, will be available for potential permissive dedication as a result of the 1707 process, allowing the water to be legally dedicated and protected for fish and wildlife and riparian benefit on an as-needed basis (Appendix A includes a summary of the Hart Ranch legally appropriated water rights as set forth in the 1932 Shasta River Judgement and Decree). The Draft Hart Ranch SHA further describes these instream dedications of existing decreed water rights on the Little Shasta River (NOAA Fisheries, 2016).

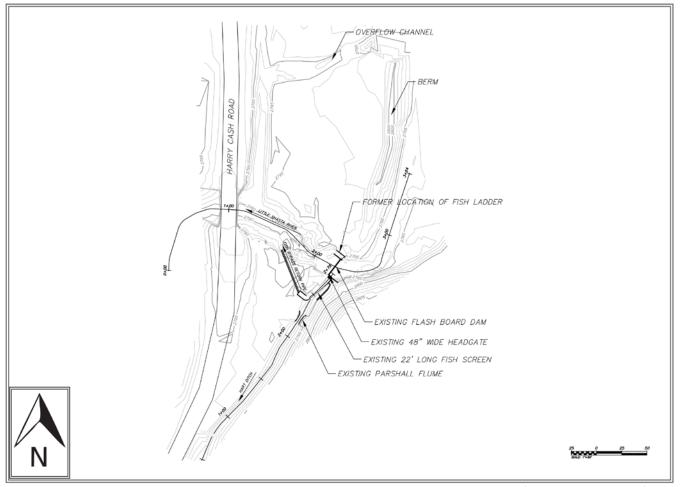






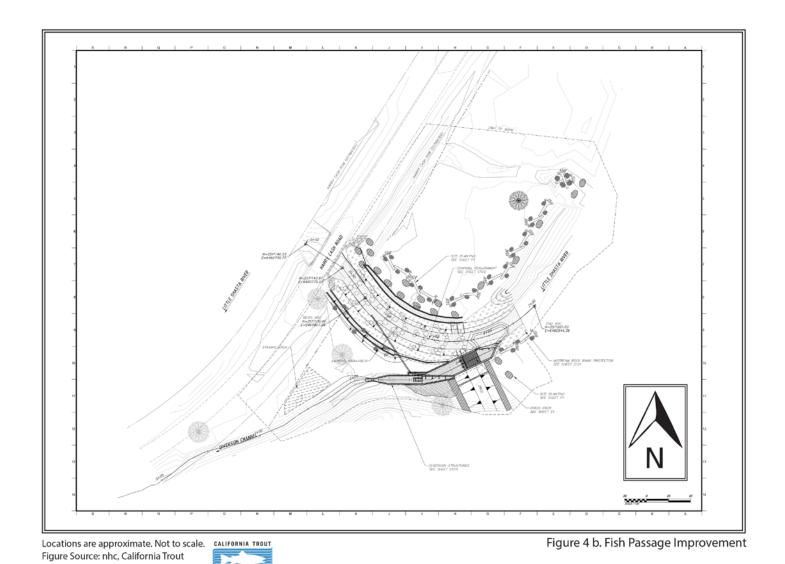
Locations are approximate. Not to scale.

Figure 3. Mainline Pipe Replacement



Locations are approximate. Not to scale. Figure Source: nhc, California Trout

Figure 4 a. Fish Passage Existing Conditions



Hart Ranch Flow Enhancement Project
Draft Initial Study/Mitigated Negative Declaration

3.3 Project Monitoring

Monitoring for this project will focus on quantifying pre-implementation baseline conditions, the response to implemented flow enhancement actions, and how the changes are protected for the project reach of the Little Shasta River. Monitoring activities provide the basis of long-term (e.g., 20-year) monitoring for project performance, and may be adapted given changes in stream conditions or water management activities.

Streamflow – Streamflow monitoring methods are designed to confirm compliance of instream flow dedications using measured data. Monthly measurements, with additional data collected on an event-based schedule, will be used to develop streamflow rating curves for each monitoring site. Streamflow time series records will be developed based on standard USGS streamflow monitoring protocols established in Rantz (1982). On-going research shows that channel changes due to winter flows may alter the stage-discharge relationship at priority locations; thus, streamflow measurements will be repeated each year of the project to update rating curves.

Geomorphology – Each year, topographic surveys will occur at the project site riffle crest to confirm that the project design meets passage requirements for applicable coho life stages, as established in *Critical Riffle Analysis for Fish Passage in California Department of Fish and Game Instream Flow Program Standard Operating Procedure DFG-IFP* (CDFG, 2012). Evidence of channel-altering flows, may result in event-based topographic monitoring as well. Using both topographic data and streamflow records generated during project implementation, a quantitative relationship between river discharge and percent of contiguous channel width at the project riffle will be developed.

Aquatic habitat – Prior to project implementation, aquatic habitat monitoring will be used characterize available habitat in the project reach using methods developed by the California Department of Fish and Wildlife (Flosi et al. 2010). Project implementation is not expected to alter the distribution of existing habitats.

Water temperature – Water temperature data will be collected using automated data loggers on a sub-hourly timestep for the duration of the project. Monitoring protocols will follow U.S. EPA guidelines (EPA, 2014). Water temperature conditions for coho salmon life stages will be evaluated using criteria established in EPA (2003).

Water quality (nutrients) – Water quality grab samples will be analyzed for a suite of nutrients, including TN, NO3, NH4, TP, PO4, DOC; as well as pH, turbidity, and EC. These constituents will be analyzed to inform linkages between physical, chemical, and ecological function in the Little Shasta River. Specifically, these linkages will be analyzed to qualitatively assess potential productivity for coho salmon in the project area. Sampling methods, including QA/QC procedures, will follow the guidelines established by the Surface Water Ambient Monitoring Program (SWAMP 2014, 2008).

Macroinvertebrates – Macroinvertebrate samples will be collected prior to and after project implementation above and below the project site. Sampling will follow standard operating procedures for the collection of benthic macroinvertebrate samples following the *Surface Water Ambient Monitoring Program Bioassessment Procedures for Wadeable Streams* (SWAMP, 2014). Stream macroinvertebrates will be collected using a 500 μ mesh D-frame net, preserved in ethanol and returned to the laboratory for processing. Macroinvertebrate samples will be subsampled in the laboratory and identified to lowest practical level. Trends in quantifiable metrics throughout the project period will be assessed to determine biological response of stream conditions to project implementation. Invertebrate sampling requires biological permitting; all permits are or will be secured prior to any biological monitoring associated with the project, and will be maintained for the duration of the project.

Fish presence/absence – Adult and juvenile presence/absence monitoring will be conducted prior to and after project implementation using non-intrusive methods at delineated reaches above and below the project site. Adult spawning surveys will occur twice monthly between September 1st and December 1st of each year to coincide with adult returns. Spawning surveys will be conducted along the length of the entire project reach upstream of the project site to assess adult presence. Walking the project reach, the presence and location of adult anadromous salmonids (live or carcasses) or redds will be recorded using a GPS and mapped following the methods of Gallagher (2001). Snorkel surveys will be conducted prior to and after project implementation at three reaches above the project site to

determine the presence or absence of juvenile fishes and habitat usage within each reach (e.g., pool, riffle, large woody debris). Monitoring reaches will be delineated based on geomorphic classes to include at least four riffle-pool sequences per monitoring reach. Snorkel surveys will be conducted twice monthly (depending on hydrologic conditions) between April and September, annually. Snorkel surveys will be conducted following the procedures of Apperson et al. (2015). Snorkel surveys require biological permitting; all permits are or will be secured prior to any biological monitoring associated with the project, and will be maintained for the duration of the project.

3.4 PROJECT CONSTRUCTION

CONSTRUCTION TIMING

Construction of the proposed Project is anticipated to be phased over the next five years with construction beginning in 2017 and the Project being complete by the end of 2021. Instream construction activities will be completed between June 15 and November 1 to reduce impacts to listed species known to occur in the Little Shasta River. However, the work timeline will be coordinated in advance with CDFW and NOAA Fisheries, and is subject to modification. Phases of construction may be accelerated or delayed based on design progress, environmental conditions, special status species presence, available funding, or other factors.

CONSTRUCTION METHODS

General construction will be performed between 7 am and 7 pm Monday through Saturday, excluding holidays. Project activities have existing two-track dirt road access routes, County road access routes, or are located in active agricultural areas. All instream work will be limited to June 15-November 1 and will be consistent with the Biological Opinion issued by the NOAA Fisheries (2012) and the SONCC Recovery Plan (NOAA, 2014). Dewatering for in-stream work is required and will be consistent with conditions of a new Lake and Streambed Alteration Agreement for work and the NOAA Biological Opinion, and is anticipated to require use of a temporary coffer dam and temporary diversion pipe. The stream channel is anticipated to be dewatered for approximately 6 weeks.

Construction equipment is anticipated to include, but is not limited to, backhoes, excavator, bulldozer, skip loader, dump truck, cement truck, pick-up trucks, welder, chainsaw, and hand tools. As the Project is located on active cattle ranches, all existing fencing will be replaced following construction, and cattle may be present during construction. Project contractors will work closely with land owners to coordinate livestock activities with construction activities.

3.5 REQUIRED PERMITS AND APPROVALS

The following permits and/or approvals may be required to implement the proposed Project:

U.S. ARMY CORPS OF ENGINEERS (ACOE)

The U.S. Army Corps of Engineers (ACOE) regulates the discharge of dredged or fill material into Waters of the United States, including wetlands, under Section 404 of the Clean Water Act. Modifications to wetland areas on the Project site that have been delineated under ACOE criteria are subject to the Section 404 permitting process.

The ACOE regulations describe two categories of permits: individual and general. A general permit means that the ACOE authorization is issued on a nationwide or regional basis for activities with minimal or cumulative environmental effects. The most well-known of the general permits are nationwide permits (NWP). Such permits can be issued in a shorter length of time than an individual permit. An individual permit means that the ACOE authorization is issued on a per-project basis for activities with a larger environmental effect. Such permits usually are issued in 6-24 months' time. Section 404 permits from the ACOE may be required for the Project and are anticipated to be satisfied through project partnership with the US Fish and Wildlife Service Partners Nationwide 27 or 31 Permit process.

REGIONAL WATER QUALITY CONTROL BOARD (RWQCB), NORTH COAST REGION

The RWQCB typically requires that a Construction Storm Water Permit (Construction General Permit) be obtained for projects which result in land disturbance of one acre or more. If obtained, typical conditions issued with such a permit include the submittal of and adherence to an erosion control plan, prohibitions on the release of oils, grease or other hazardous materials, and prohibition of sediment discharge. The Project is anticipated to require a Construction General Permit.

The RWQCB also issues a Water Quality Certification under authority of Section 401 of the Clean Water Act. After submittal of a Pre-Construction Notification Package to the ACOE, the project proponent would need to submit a copy of the Section 404 Notification and appropriate fees directly to the RWQCB to obtain the Section 401 Water Quality Certification or waiver. Section 401 permits from the RWQCB may be required for work associated with fish passage improvements along the Little Shasta River.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

The Department of Fish and Wildlife is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the law requires any person, state or local governmental agency, or public utility to notify the Department before beginning an activity that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake (Fish and Game Code section 1602). If the Department determines that the activity could substantially adversely affect an existing fish and wildlife resource, including through diversion, a Lake or Streambed Alteration Agreement is required. A new Streambed Alteration Agreement will be secured for this Project, including construction, operation, and maintenance of the new water management infrastructure.

The California Endangered Species Act (CESA) Section 2081 subdivision (b) of the Fish and Game Code allows CDFW to issue an incidental take permit for a species listed as candidate, threatened, or endangered only if specific criteria are met. These criteria are reiterated in Title 14 of the California Code of Regulations, Sections 783.4 subdivisions (a) and (b). Measures to minimize the take of species covered by the permit and to mitigate the impacts caused by the take will be set forth in attachments to the permit, generally a mitigation plan prepared and submitted by the Permittee in coordination with CDFW staff. The mitigation plan should identify measures to avoid and minimize the take of CESA-listed species and to fully mitigate the impact of that take. These measures can vary from project to project. Currently, the Project is not anticipated to require a CESA incidental take permit.

Authorization for any take of coho salmon associated with the Project will occur via the Draft Hart Ranch SHA. Any person that prepares a SHA and obtains an enhancement of survival permit from NOAA Fisheries, in accordance with the procedural and substantive requirements of section 10(a)(1)(A) of the Endangered Species Act (ESA) of 1973, as amended, authorizing the incidental take of an endangered or threatened species that is also listed under CESAmay also request and obtain, a consistency determination, pursuant to Fish and Game Code section 2080.1. Because coho salmon are listed under both ESA and CESA, the Hart Ranch intends to seek and obtain an consistency determination from CDFW upon NOAA Fisheries approval of the Draft Hart Ranch SHA and issuance of an enhancement of survival permit. Because the Project is related to the Draft Hart Ranch SHA, it is anticipated that the CDFW consistency determination will be needed to complete the Project, pursuant to Fish and Game Code Sections 2089.6, 2089.22, and 2080.1.

No Section 2081(b) permit may authorize the take of "fully protected" species and "specified birds". If a project is planned in an area where a fully protected species or a specified bird occurs, an applicant must design the project to avoid all take; the Department cannot provide take authorization for the species under CESA. A Take Permit from the CDFW will probably not be required for relocation of special status species prior to and during project construction. Coho are currently not known to be present in this reach of the Little Shasta River. Prior to construction, a snorkel survey will be completed by a qualified biologist to determine coho presence. If coho are present, fish will be removed from the work area by CDFW, or by a permitted individual with authorization to take

coho, and block nets consisting of fine-meshed net or screen shall be installed in-channel above and below the work area.

STATE WATER BOARD SENATE BILL 88

In June 2015 Governor Brown signed Senate Bill (SB) 88 defining Emergency Regulation for Measuring and Reporting Water Diversions. In January 2016, the State Water Board adopted a Resolution to implement the new law and in March 2016, the regulation was submitted to the Office of Administrative Law (OAL) for review and approved. The measurement requirements of the regulation apply to all water right holders who divert more than 10 acre-feet of water per year. The annual reporting requirements in the regulation apply to all statement holders as well as persons authorized to appropriate water under a permit, license, registration (small domestic, small irrigation, or livestock stockpond), or certificate for livestock stockpond use). Key provisions of the regulation include (1) annual water use reporting requirements for water rights holders; (2) reporting requirements for water right holders during times of insufficient supply; (3) deadline for complying with measurement and reporting requirements; (4) required accuracy for measurement and frequency monitoring; (5) measurement methods; (6) alternative compliance; and (7) certification of water measurement devices.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

NOAA Fisheries is a division of the Department of Commerce, responsible for the stewardship of the nation's living marine resources and their habitat. NOAA's National Marine Fisheries Service is responsible for the management, conservation and protection of living marine resources within the United States' Exclusive Economic Zone (water three to 200 miles offshore). Using the tools provided by the Magnuson-Stevens Act, NOAA's National Marine Fisheries Service assesses and predicts the status of fish stocks, ensures compliance with fisheries regulations and works to reduce wasteful fishing practices. Under the Marine Mammal Protection Act and the Endangered Species Act, NOAA Fisheries recovers protected marine species without unnecessarily impeding economic and recreational opportunities.

In 2012 NOAA Fisheries finalized a programmatic Biological Opinion consistent with Section 7 of the Endangered Species Act, to fund, permit (or both), restoration projects within the NOAA Restoration Center's Northern California Office jurisdictional area for a ten year period (ending in 2022). The NOAA RC program includes the funding, permitting, or both, of restoration projects in Humboldt, Del Norte, Trinity, Siskiyou, and part of Mendocino counties. Proposed restoration projects are categorized as follows: instream habitat improvements, instream barrier modification for fish passage improvement, bioengineering and riparian habitat restoration, upslope watershed restoration, removal of small dams, creation of off-channel/side channel habitat features, development of alternative stockwater supply, tailwater collection ponds, water storage tanks, piping ditches, fish screens, and head gates, and water measuring devices. The proposed Project is consistent with the NOAA RC programmatic Biological Opinion.

U.S. FISH AND WILDLIFE SERVICE

The Endangered Species Act, with some exceptions, prohibits activities affecting threatened and endangered species unless authorized by a permit from the U.S. Fish and Wildlife Service (Service) or the NOAA Fisheries.

The Migratory Bird Treaty Act makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. The migratory bird species protected by the Act are listed in 50 CFR 10.13. As authorized by the Migratory Bird Treaty Act, the U.S. Fish and Wildlife Service issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, educational, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The proposed Project is not expected to require a Biological Opinion from the U.S. Fish and Wildlife Service.

SISKIYOU COUNTY PUBLIC WORKS DEPARTMENT

The Public Works Department is responsible for the construction and maintenance of County facilities and grounds, including roadways and bridges, within the unincorporated areas of Siskiyou County. The Department of Public

Works also provides engineering and surveying services for The County. An encroachment permit is required for actions within County Right of Ways.

SISKIYOU COUNTY BUILDING DIVISION

The Building Division of the Siskiyou County Community Development Department has authority over projects within a flood zone as defined by Title 10, Chapter 10 of the Siskiyou County Municipal Code. Chapter 10 applies to all areas of special flood hazard within the jurisdiction of the County and identified by special flood hazard maps. The purpose of this Chapter of the Municipal Code is to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions, modification of a flood zone, habitation of a flood zone, and other provisions, and therefore a Development Permit is required for actions within those areas defined in Chapter 10.

3.6 RELATIONSHIP OF PROJECT TO OTHER PLANS

SISKIYOU COUNTY GENERAL PLAN

The Siskiyou County General Plan [General Plan] is the fundamental document governing land use development within the unincorporated areas of the County, including the Project area. The majority of the General Plan was last updated in 1974, while the Land Use and Circulation Element of the General Plan was last updated and adopted in 1980.

The County's General Plan includes numerous goals and policies pertaining to Land Use, Circulation, Housing, Conservation, Open Space, Parks and Recreation, Noise, Public Health and Safety, and Public Facilities. The proposed Project will be required to abide by all applicable goals and policies included in the County's adopted General Plan.

The Land Use Element of the Siskiyou County General Plan is prepared differently from many contemporary approaches in land use planning, and involves the preparation of a series of overlay maps identifying development constraint areas, contrary to many general plans which identify Land Use designation. Therefore, the Siskiyou County General Plan does not assign land use designations, but rather through the utilization of overlay maps identifying development constraints, identifies areas where specific activities or developments would be inconsistent with county specified or natural constraints.

The majority of the Shasta Valley is unmapped by the Land Use and Circulation Element constraints maps, with the exception of some areas of the valley that are mapped for high septic tank limitations (General Plan Land Use and Circulation Element, maps 1 through 14). There are no inconsistencies between the Project and the County General Plan.

BASIN PLAN FOR THE NORTH COAST REGIONAL WATER QUALITY CONTROL BOARD

The Project area is within the jurisdictional boundaries of the North Coast Regional Water Quality Control Board (RWQCB), one of nine regional boards in the state. The North Coast RWQCB, with an office in Santa Rosa, develops and enforces water quality objectives and implementation plans that safeguard the quality of water resources in its region. Specifically, the RWQCB identifies and assesses potential water quality problems, remedies existing problems through imposing or enforcing appropriate measures, and monitors problem areas to assess the effectiveness of remediation measures. Remedies for problems include their prevention or cleanup. Common means of prevention are the issuance of National Pollution Discharge Elimination System (NPDES) permits, waste discharge requirements (WDRs), and discharge prohibitions and restrictions. Cleanup is implemented through enforcement measures such as Cease and Desist Orders and Cleanup and Abatement Orders.

One of the duties of the RWQCB is the development of "basin plans" for the hydrologic area over which it has jurisdiction. In May 2011, the North Coast RWQCB issued the latest edition of its *Water Quality Control Plan for the North Coast Region*, also known as the Basin Plan. The Board periodically reviews and updates the Basin Plan as needed to address new or changing water quality issues; this review was most recently completed in 2014. The Basin Plan covers both the Klamath River Basin and the North Coastal Basin. It sets forth water quality objectives

for both surface and ground waters for the region, and it describes implementation programs to achieve these objectives. The Basin Plan provides the foundation for the regulations and enforcement actions of the North Coast RWQCB. This Project is consistent with the goals of the Basin Plan.

SHASTA RIVER TEMPERATURE AND DISSOLVED OXYGEN TOTAL MAXIMUM DAILY LOAD (TMDL) ACTION PLAN

The Shasta River Temperature and Dissolved Oxygen Total Maximum Daily Load (TMDL) Action Plan was adopted by the California Regional Water Quality Control Board, North Coast Region in June of 2008. The TMDL amends the Water Quality Control Plan for the North Coast Region to establish new requirements to improve water quality and stream conditions for beneficial uses including habitat for salmon and steelhead trout in the Shasta River watershed.

The Shasta River TMDL is a long term strategy to improve water quality and enhance salmon and steelhead habitat in the Shasta River. Currently, low dissolved oxygen levels and high stream temperatures are impacting fish habitat. Salmon and steelhead in the Shasta Basin need cold, clean water to thrive.

The TMDL Action Plan includes temperature and dissolved oxygen total maximum daily loads (TMDLs) and describes the implementation actions necessary to achieve the TMDLs and attain water quality standards in the Shasta River watershed. The goal of the Shasta River TMDL Action Plan is to achieve the TMDLs, and thereby achieve dissolved oxygen and temperature related water quality standards, including the protection of the beneficial uses of water in the Shasta River watershed.

The TMDL recognizes that ranching activities may impact water quality, and recognizes that there are a number of management activities and practices that can be undertaken to minimize impacts, including:

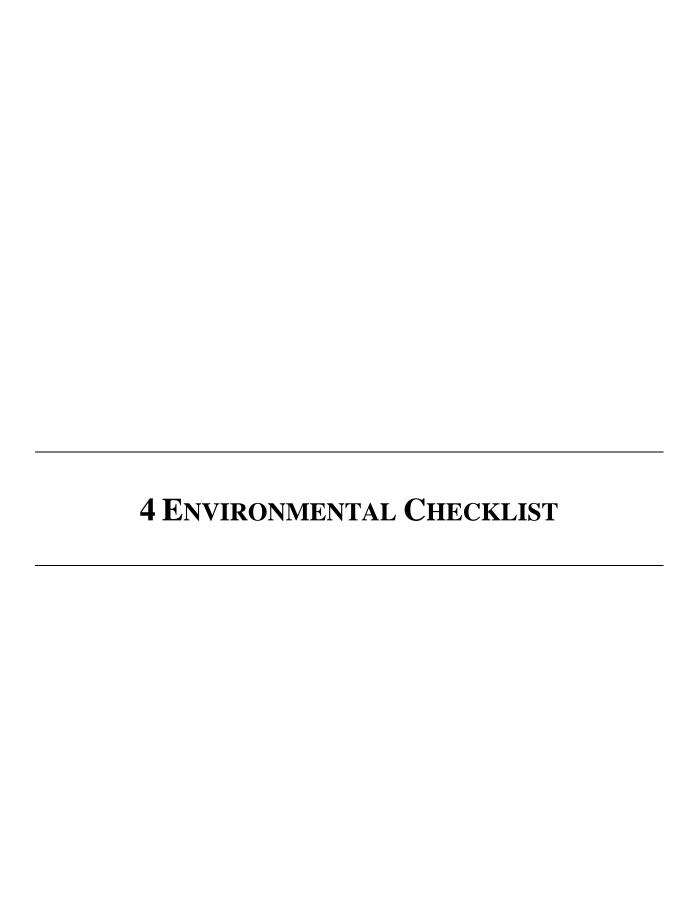
- Installing exclusionary fencing to prevent livestock from damaging streams and riparian vegetation.
- Planting/maintaining riparian vegetation to help shade streams to cool water temperatures.
- Reducing tailwater discharges.
- Minimizing water contact with animal manure.
- Dedicating cold water to the river where opportunities are available

The TMDL Action Plan contains measures for improving water quality in the Shasta River and asks that all landowners in the Shasta River watershed who graze livestock or irrigate their land submit annual progress reports to the North Coast Water Board. The proposed Project is consistent with the Shasta River TMDL Action Plan.

SHASTA RIVER WATERSHED PLAN

The Shasta River Watershed Plan was prepared by the Shasta River Coordinated Resource Management and Planning Committee (CRMP) and is implemented by the Shasta Valley Resource Conservation District. The plan includes the Shasta CRMP Riparian Zone and Anadromous Fish Action Plan, California Department of Fish and Game Anadromous Fish Biological Needs Assessment, Shasta CRMP Uplands Plan/RMAC Plan, Yreka Creek Greenway Plan, CRMP mid-term goals, work plan, original CRMP plan, Shasta River Remote Monitoring Station, Sport, tribal and commercial Salmon Harvest Information and a discussion of the unique Shasta Valley Geology.

The Shasta CRMP Riparian Zone and Anadromous Fish Action Plan was developed to identify opportunities to improve salmon and steelhead numbers in the Shasta River. The plan identifies problems as well as recommends action to alleviate problems associated with water, erosion, fish needs, fishery harvest, and the Klamath River. The proposed Project supports a number of the identified actions in the Shasta River Watershed Plan to address identified impacts to water quality.



En	vironmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1.	AESTHETICS. Would the project:				
a)	Have a substantial adverse effect on a scenic vista?			\boxtimes	
b)	Substantially damage scenic resources, including, but not				\boxtimes
	limited to, trees, rock outcroppings, and historic buildings				
	within a state scenic highway?				
c)	Substantially degrade the existing visual character or quality of			\boxtimes	
	the site and its surroundings?				
d)	Create a new source of substantial light or glare which would			\boxtimes	
	adversely affect day or nighttime views in the area?				

The Shasta Valley is an 800-square-mile basin drained by the Shasta River, located in central Siskiyou County in far northern California. The Shasta River drains northward through the valley to join the Klamath River near the Oregon border. A large high elevation plain comprises the valley which is surrounded by mountains in the Klamath National Forest on the west and north, the Mount Eddy range to the southwest, 14,179 foot Mt. Shasta, a dormant volcano, to the south, and the Cascade mountain range to the east. These mountains rise 300-11,000 feet above the valley, and provide a scenic backdrop throughout the Shasta Valley. The nearby mountain ranges are covered with pine forests and oak, while the higher slopes of Mt. Shasta are covered in glaciers which are visible from the valley. The higher slopes of the mountain are covered in snow throughout the winter months. These views are readily seen from the entire valley and are clearly visible from Interstate 5 which runs north-south through the western part of the valley. State Route 97, which is part of the Volcanic Legacy Scenic Byway All-American Road, traverses the southeastern edge of the valley. Land throughout the valley accommodates agricultural uses, mostly grazing and hay production.

Discussion of Checklist Answers:

- a) The Project will be located at an existing cattle ranch in the northern portion of the Shasta Valley, along the Little Shasta River. Project activities are limited to existing privately-owned agricultural lands, County roadway alignments, irrigation alignments, and along a limited reach of the Little Shasta River. Although temporary impacts will be present during construction, and some construction activity will be visible from County roads, all improvements and construction corridors will blend into the existing agricultural and riparian scenery within a few years of completion once annual and perennial grasses colonize the disturbed areas and Project riparian vegetation is established. While there will be temporary changes in views from roadways associated with construction these changes are not considered to be substantial or adverse, and no long term impacts to scenic vistas will occur. Within a few years after completion, the natural vegetation will have re-established itself and the resulting visual impact will be *less than significant*.
- b) The Project may include limited vegetation removal activities, primarily limited to generally non-native annual and perennial grasses within existing pastures. The Project may include felling of up to 20 juniper trees from uplands on the Hart Ranch. Riparian vegetation removal at the Fish Passage location along the Little Shasta River will be necessary to complete improvements, though planting and mulching of this area following construction is included as part of this Project. Riparian vegetation removal and post construction planting is discussed in Section 4, Biological Resources, of this document. Although Highway 97 is a Scenic Byway All-American Road, no designated scenic highways exist within the Project area, therefore there will be *no impact* to designated scenic highways (Caltrans, 2016).
- c) Please see a) above. This impact is considered less than significant.

d) The project does not include any new lighting. New sources of glare may include two water tanks on the southeast side of Dorris Hill, though the new tanks will be painted earth tones to blend with the surrounding landscape and limit glare. This impact is considered to be *less than significant*.

Conclusions Relating to Aesthetics:

The proposed Project will have temporary impacts to the existing views within the immediate Project area due to ground cover removal, grading, and Project construction. Once the Project is complete, and with the passage of a few years, the vegetation will establish itself and the viewshed will be similar to that of today. As the visual impacts are considered temporary, and the project is located primarily on private lands with no public access, impacts to aesthetics is considered *less than significant*.

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
		Incorporated		
2. AGRICULTURE & FOREST RESOURCES. In determining				
significant environmental effects, lead agencies may refer to the				
Assessment Model (1997), prepared by the California Department				
assessing impacts on agriculture and farmland. In determining whethe are significant environmental effects, lead agencies may refer to info				
Forestry and Fire Protection regarding the state's inventory of forest				
Project and the Forest Legacy Assessment project; and forest carbon and the Forest Legacy Assessment project an				
Protocols adopted by the California Air Resources Board. Would the p		ent methodolog	sy provided i	n rorest
a) Convert Prime Farmland, Unique Farmland, or Farmland of				
Statewide Importance (Farmland), as shown on the maps				\boxtimes
prepared pursuant to the Farmland Mapping and Monitoring				
Program of the California Resources Agency, to non-agricultural				
use?	_	_	_	_
b) Conflict with existing zoning for agricultural use, or a Williamson				\bowtie
Act contract?				
c) Conflict with existing zoning for, or cause rezoning of, forest land				
(as defined in Public Resources Code section 122200(g)), timberland (as defined by Public Resources Code section 4625),				\bowtie
or timberland zoned Timberland Production (as defined by				
Government Code section 51104(g))?				
d) Result in the loss of forest land or conversion of forest land to			\bowtie	
non-forest use?				
e) Involve other changes in the existing environment, which, due to				\boxtimes
their location or nature, could result in conversion of Farmland, to				
non-agricultural use or conversion of forest land to non-forest				
use?				

Although the Project is located within existing agricultural lands, the Project is intended to improve irrigation efficiencies in an effort to enhance existing agricultural practices and protect the long-term viability of agriculture by helping agricultural landowners meet Clean Water Act and Endangered Species Act requirements. None of the Project components will result in the conversion of agricultural lands to non-agricultural uses. The Project footprint for each component is relatively small, and Project improvements largely consist of underground improvements all of which will improve agricultural water management and existing irrigation systems. None of these activities will result in changes to the environment which may result in conversion of Farmland to non-agricultural use. The Project is not located on or within the vicinity of any lands identified as forest land or timberland.

Discussion of Checklist Answers:

a) The Project is entirely within existing farmlands throughout the Shasta Valley, some of which are identified as Prime Farmland and Farmland of Statewide Importance by the CA Department of Conservation Farmland Mapping and Monitoring Program (FMMP, 2016). Although the Project activities include excavation and irrigation improvements, including the installation of underground pipelines and irrigation diversion and control modifications, project activities will not result in the conversion of any farmland to non-agricultural use. The Project is intended to improve agricultural water management efficiencies and opportunities in order to improve existing active farmland. The Project will not result in the conversion of Prime Farmland or Farmland of Statewide Importance to non-agricultural use; rather the Project will enhance existing agricultural lands. *No impact*.

- b) The Project is intended to improve water management efficiencies, opportunities, and fish passage within the Little Shasta River. The Project will not conflict with the existing zoning and will not conflict with a Williamson Act Contract. The Project will enhance existing agricultural lands. *No impact*.
- c) The Project is consistent with the existing agricultural zoning. No forest land or timberland exists within the Project vicinity. *No impact*.
- d) See c) above. The Project is not located within the vicinity of forest land, therefore no conversion of forest land to non-forest use will occur. The Project may include the removal of up to 20 juniper trees from uplands to be utilized for bank stabilization along the Little Shasta River and riparian vegetation removal. Tree removal will be isolated and is not considered to result in the loss of or conversion of forest land. *Less than significant*.
- e) The Project will not result in any other changes to the existing environment, which due to their location or nature, could result in the conversion of Farmland to non-agricultural. The Project is intended to improve water management efficiencies, thereby improving existing agricultural lands. No forest land will be converted as a result of the Project. *No impact*.

Conclusions Relating to Agricultural and Forest Resources:

Since the Project is located on agricultural lands and is intended to improve irrigation efficiencies and management, the Project will result in a net benefit to active agricultural lands, and will not result in the conversion of lands to non-agricultural or timber uses. There will be a net benefit to agricultural land as a result of the Project and impacts are considered *less than significant*.

En	vironmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3.	AIR QUALITY. Where available, the significance criteria estab	•			ement or
air	pollution control district may be relied upon to make the following	determinations	. Would the p	roject:	
a)	Conflict with or obstruct implementation of the applicable air quality plan?				
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		\boxtimes		
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?				
d)	Expose sensitive receptors to substantial pollutant concentrations?		\boxtimes		
e)	Create objectionable odors affecting a substantial number of people?				

The Shasta Valley is located in a region identified as the Northeastern Plateau Air Bain, which principally includes Siskiyou, Modoc, and Lassen Counties. The larger air basin is divided into local air districts, which are charged with the responsibility of implementing air quality programs. The local air quality agency affecting the Project area is the Siskiyou County Air Pollution Control District (SCAPCD). Within the SCAPCD, the primary source of air pollution is motor vehicles. In response to this source of pollutants, the state legislature adopted the California Clean Air Act, which requires local air districts to develop measures to reduce emissions from mobile sources, such as vehicles.

Air quality standards are set at both the state and the federal levels of government. The Federal Clean Air Act requires the Environmental Protection Agency (EPA) to establish ambient air quality standards for six criteria air pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter less than 10 microns (PM_{10}) Areas that exceed a standard for a pollutant are classified as being in "non-attainment" for that pollutant and must prepare a plan to reach attainment. When the pollutants within an area are below the allowed standards, that area is considered to be in attainment of the standards.

Siskiyou County Air Pollution Control District air quality monitoring stations are located in Yreka and at the Siskiyou County Airport. The Yreka monitoring station, located on Foothill Drive, is the only station in the County that monitors levels for ozone and particulate matter as mandated by the State and Local Air Monitoring System. The Yreka monitor continuously analyses and records ambient ground-level ozone concentrations. Data is checked for errors, processed, and reported to the California Air Resources Board (CARB) quarterly. Precision checks are made and recorded regularly to insure data integrity. Particulate matter less than 2.5 microns (PM2.5) in diameter is monitored in Yreka. Once every six-days the District exposes pre-conditioned filters for 24-hours and returns the filters to the CARB PM analysis laboratory to calculate particulate mass concentrations and report to the Environmental Protection Agency (EPA). A continuous PM2.5 monitor in Yreka is under development that will eventually replace the 1-in-6-day monitor.

Siskiyou County has not been identified as having significant air quality problems and is considered to have attained all federal and state air quality standards. The County is considered to be in full attainment for all Federal and State standards for ambient air quality. The Siskiyou County Air Pollution Control District does not have an attainment plan or maintenance plan (Olson, 2016).

Offensive odors rarely cause any physical harm; however, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Odor impacts on residential areas and other sensitive receptors, such as daycare centers and schools, are of particular concern. Major sources of odor-related complaints by the general public commonly include wastewater treatment facilities, landfill disposal facilities, food processing facilities, agricultural activities, and various industrial activities (e.g., petroleum refineries, chemical and fiberglass manufacturing, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations).

A sensitive receptor is a location where human populations, especially children, seniors, and sick persons are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals, and schools. The closest sensitive receptors are rural residences that are within proximity to agricultural operations.

Project Emissions

Short Term Impacts: Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but possess the potential to present an air quality impact. The construction and development of the proposed Project components would result in the temporary generation of emissions resulting from excavation, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment and materials. It is expected that the Project will be implemented with the use of standard construction equipment including, but not limited to excavators, backhoes, dump trucks, cement trucks, and hand tools. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities. The Project is anticipated to be phased over three (3) years with construction phases lasting between 6 and 8 weeks.

Long Term Impacts: The Project is primarily an infrastructure project, consisting of improvements to existing agricultural irrigation systems, and will result in temporary air quality impacts during construction. Long term impacts consist of the operation of a new booster pump, and regular operation of the associated well and pump to supply the stockwater system. The booster pump will be used to supply the new elevated storage tanks for the stockwater system. The electrical need of this pump is 480V and about 2 amps. Assuming the booster pump operates for approximately 9 hours per day, total estimated annual electrical usage is 1,800 kw-h. The booster pump will draw water from an intermediate storage tank that will be filled using the existing groundwater well. The well will also be plumbed to supply the wetland area northeast of Dorris Hill that is utilized by sandhill cranes (Ostrowski, 2016). The existing electrical service to this pump is sufficient to operate the existing well and the new booster pump. New flow meters for the stockwater, mainline, and diversion structure will be solar or battery operated and are not considered a potential source of long-term GHG emissions.

Discussion of Checklist Answers:

- a) Siskiyou County is part of the Northeast Plateau Air Basin. The Basin currently has no air quality plans by which jurisdictions within must abide (Olson, 2016). Therefore, the Project will have *no impact* on an air quality plan.
- b) Siskiyou County is currently in full attainment for all criteria pollutants (Olson, 2016). Implementation of the proposed Project may result in increases in short-term emissions pollutant concentrations at nearby receptors as a result of construction activities, including dust and construction vehicle emissions. The Project will result in minor long-term increases in emissions and pollutants from the new electric booster pump (additional 1,800 kw-hr per year), and flow meters which will be battery or solar operated. To minimize impacts from short-term emissions at nearby receptors during construction, MM 3.1, is provided. As Siskiyou County is in full attainment, with implementation of MM 3.1 impacts would be considered *less than significant with mitigation incorporated*.
- c) See b) above. The Project area is in full attainment for all criteria pollutants. **MM 3.1** will reduce project construction impacts to a level that is considered to be *less than significant with mitigation incorporated*.

- d) Portions of the proposed Project are located within proximity to single family residences. Air Quality impacts are considered to be minor and temporary in nature, as they are directly related to construction activities. Incorporation of MM 3.1 will reduce impacts to sensitive receptors to levels that are considered to be less than significant with mitigation incorporated.
- e) The Project is located within the Shasta Valley on active agricultural lands, primarily utilized for cattle grazing. This use has odors associated with it, which are common throughout the Project area. The proposed Project will not result in any additional people being exposed to these existing odors. Nor will the Project result in any new odors. The Project will not impact the existing cattle grazing operations in the long term and therefore there will be no change in this source of odor as a result of the Project. *No impact*.

Mitigation Measures:

- **MM 3.1:** Depending on weather conditions, the Contractor shall implement dust control measures. Measures include, but are not limited to, the following:
 - The Contractor shall reestablish ground cover on disturbed areas of construction site through seeding, revegetating, and watering or mulching.
 - The Contractor shall suspend all grading and earth moving operations of a Project when winds (as instantaneous gusts) exceed 20 miles per hour or when winds create construction induced visible dust plumes moving beyond the Project site, in spite of dust control measures.
 - The Contractor shall water active construction sites at least twice daily as necessary to reduce dust.
 - The Contractor shall cover the beds of all trucks hauling dirt, sand, soil, or other loose materials on public rights-of-ways or shall maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the side of the trailer).

Timing/Implementation: Prior to and during construction.

Enforcement/Monitoring: Siskiyou County Air Pollution Control District.

Conclusions Related to Air Quality:

With implementation of mitigation measure MM 3.1 impacts to air quality as a result of the Project will be *less than* significant with mitigation incorporated.

En	vironmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
4.	BIOLOGICAL RESOURCES. Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
c)	Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.), through direct removal, filling, hydrological interruption, or other means?				
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?				

A Biological Resources Report and Wetland Delineation for the Project were completed by Rabe Consulting in October and November of 2016, and are included as **Appendix C** and **Appendix D** to this document. The biological evaluations were completed utilizing database searches to identify a list of species with potential to exist within the Project area, site investigations completed on August 24, 2016, and topographic maps. The study includes review of plant and animal species observed within the Project area, as well as their potential for occurrence, and includes analysis of wetland resources. Additionally, CDFW has completed raptor, botanical, and bait camera surveys for mammals on the Ranch in 2014 and 2015.

The Project impact area is limited to the Project footprint as identified in design engineering plus a 25-foot buffer on either side, and totals 41.66 acres of the working ranch. The Project consists primarily of linear alignments along proposed pipe alignments with associated water management infrastructure in existing irrigated pastures and uplands with occasional irrigation ditch crossings, and modification of the existing agricultural diversion structure which poses a partial barrier to fish passage in the Little Shasta River. **Table 4.1** identifies habitat types, including Wetlands and Waters of the U.S., within the Project area by acreage as well as location within the Project area and character of the habitat.

TABLE 4.1 HABITAT TYPES WITHIN THE PROJECT AREA

Habitat Type	Location / Project Component	Character	Acreage
Flood irrigated	Stockwater & Main	Uplands consisting of flood irrigated pasture grasses or alfalfa fields	32.70
Pasture	Pipeline	used for hay production. Does not exhibit wetland soils, hydrology or	

		vegetation.	
Native sagebrush-scrub	Stockwater supply tanks on Dorris Hill	Scrub habitat species such as sagebrush, rabbit brush, pasture grasses and forbs. The area is rocky and exhibits areas of bare soil with limited bunch grass cover (< 25%).	8.49
Dense riparian shrub	Fish Passage Improvements Little Shasta River	Dense riparian shrub and tree growth with mature willows and little to no understory. The shrubs include multiple species of willows.	0.13
Wetland	Stockwater irrigation supply ditch segments	These wetlands are small irrigation supply ditches within the study area. The study area crosses portions of these ditches, so only the portion within the study area was delineated with the remainder extending outside of the study area. These ditches are well maintained and therefore well defined. They exhibit steep ditch banks which leave very little to no riparian vegetation before the waterway transitions from wetland to upland. The ditch banks are all considered upland and exhibit upland weedy species and pasture grasses. The wetland extends beyond the study area. (Wetland 1-10, Appendix F).	0.25
Waterway	Main Pipeline irrigation supply ditch segments	Existing irrigation supply ditches with width of 2-4 feet. The channel is excavated with disbands elevated above the adjacent agricultural fields and natural areas. The ditch banks are upland and exhibit upland weedy species and grasses. Within the channel, the banks are steep leaving little to no riparian vegetation. The feature boundary is marked by the Ordinary High Water line; therefore, these features are considered non-vegetated waterways instead of wetlands. (Evan's Wetland 1-4, Appendix F).	0.06
Wetland	Fish Passage Improvements Little Shasta River	This feature is a portion of the Little Shasta River where the diversion point intersects the river. The wetland is the active river channel and a narrow edge of vegetation along the ordinary high water margin. The upper bank of the river has mature willows. It is well defined by hydrologic indicators, topography, and vegetation. The wetland within the study area is at the site of the diversion, which will be installed at the bottom of the river channel, and the diversion intake structure which is at the end of the existing irrigation ditch. The wetland extends beyond the study area. (Wetland 11, Appendix F).	0.03
Total Project Ar	00	The stand of the s	41.66

A seven and a half (7.5) acre area along the eastern toe of Dorris Hill, exhibits bulrush and cattail marsh and is known habitat for sandhill cranes (**Figure 5**). This area is outside of the study area, and was not delineated, though due to its proximity to the Project area and known use by listed species, consideration of this habitat is included herein. This marsh area is wetland seasonally and in large part receives water from the irrigation ditch tailwater. The marsh does not exhibit open water areas. The marsh is about 95% wetland plant cover with 5-10% cover of litter. As part of the stockwater improvements in the vicinity of this feature, a new dedicated pipe with valve, and flow meter will be installed from the new regulating tank as part of the new stockwater system to ensure this feature is maintained in its current wetted condition (see Project engineering, **Appendix B**). This dedicated pipe to provide water to existing wildlife habitat will be plumbed at the lowest elevation on the new regulating tank (below the stockwater pipes) to provide water priority to this wildlife habitat in low water years.

The wetland delineation will be submitted to the U.S. Army Corps of Engineers prior to any work within potential wetland areas. All regulated work in jurisdictional waters and wetlands will be authorized by a permit from the Army Corps of Engineers. All Project impacts to wetlands are considered temporary, though determination has not been made by the Army Corps of Engineers. Any permanent impacts to jurisdictional wetland area shall be mitigated through enhancing wetland areas to improve their wetland functions and quality or through the payment of fees, as required under the permit.

<u>Database search results</u>

Prior to field reconnaissance surveys, database searches were completed to identify a list of special status species with potential to exist within the Project area. Two species of plant have potential to exist within the Project area including wheat sedge (*Carex atherodes*) and pendulous bulrush (*Scirpus pendulus*). One mammal including American badger (*Taxidea taxus*) and twelve species of special-status or migratory birds, the tricolor blackbird (*Agelaius tricolor*), Swainson's hawk (*Buteo swainsoni*), black tern (*Chlidonias niger*), Northern harrier (*Circus cyaneus*), sandhill crane (*Grus canadensis tabida*), rufous hummingbird (*Selasphorus rufus*), calliope hummingbird (*Stellula calliope*), loggerhead shrike (*Lanius ludovicianus*), olive-sided flycatcher (*Contopus cooperi*), willow flycatcher (*Empidonax traillii*), bald eagle (*Haliaeetus leucocephalus*) and bank swallow (*Riparia riparia*) potentially occur. Five aquatic species, including Western pond turtle (*Emys marmorata*) and Oregon spotted frog (*Rana pretiosa*), coho salmon (*Oncorhynchus kisutch*), steelhead (*Oncorhynchus mukiss irideus*), and chinook salmon (*Oncorhynchus tshawytscha*) potentially occur within the Project area as a result of database searches.

Field Survey Results

All those species identified as a result of the database search were specifically targeted for survey to determine presence of specific habitat or species within the Project area, and survey results are as follows:

<u>Plants:</u> Biologist identified that habitat for wheat sedge and pendulous bulrush is not present in the Project area and no individuals were observed.

<u>Terrestrial wildlife and birds:</u> Biologist determined that large galleries of willows or dense blackberry patches are not present in the study area for nesting tricolored blackbirds, and areas of freshwater wetlands with emergent vegetation are not present in the study area. Therefore, habitat for nesting tricolored blackbirds and black terns is not present in the study area. American badger, Swainson's hawk, northern harrier, and bald eagle foraging areas are present, but no badger dens, Swainson's hawk, northern harrier, or eagle nests were observed within 660 feet or 0.125 miles of the proposed Project site. The limited size of the riparian areas along the ditches and canals is not typical migratory bird habitat, because it is not large enough to provide adequate cover and/or forage. Cliffs greater than 80% slope consisting of clay soils are not present, therefore quality habitat for nesting bank swallow is not present in the study area. There is quality habitat along the Little Shasta River, which was not exhibited along the banks of the ditches and canals, for rufous and calliope hummingbirds, loggerhead shrike, olive-sided flycatcher, and willow flycatcher.

Hart Ranch has breeding habitat for sandhill crane in the wet-open meadows exhibiting bulrush and cattails which are adjacent to the stockwater system alignment (approximately 7.5 acres of habitat was identified).

Aquatic Wildlife Species

No Oregon spotted frogs were observed. No slow water or back water areas with breeding habitat components were present in the river adjacent to the proposed fish screen location or in the vicinity of the current diversion. The ditch banks are moderately steep without shelves and do not provide flat areas where breeding frogs can lay eggs. Vegetation along the ditch banks is grazed and there is not adequate thatch to provide surfaces for egg laying to occur. Therefore, the ditches are not breeding habitat.

No basking structures for western pond turtles were observed in the river adjacent to the proposed fish screen location or in the vicinity of the current diversion. The ditches are not habitat as the ditch banks are sloped at greater than 10:1 and do not exhibit basking sites.

Surveys were not conducted for fish; however, the Little Shasta River is known habitat for coho salmon, steelhead and chinook salmon.

The Little Shasta River contains a key population of coho salmon that is part of the *Final Recovery Plan for the Southern Oregon/Northern California Coastal Evolutionarily Significant Unit of Coho Salmon*. Specifically, the Plan is designed to guide implementation of prioritized actions needed to conserve and recover the species by providing an informed, strategic, and voluntary approach to recovery that is based on the best available science. Use of a recovery plan ensures that recovery efforts target limited resources effectively and efficiently. The Plan also provides recovery targets to work toward, as well as criteria by which progress toward recovery will be tracked (NOAA 2014).

Discussion of Checklist Answers:

a) Coho salmon, steelhead and chinook are present in the Little Shasta River. Fish passage improvements consisting of relocation and modification of the Hart irrigation diversion structure includes these components: (1) removal of the existing concrete dam, fish screen, and old fish ladder walls along the Little Shasta River; (2) construction of approximately 105 linear feet of roughened channel with large boulder clusters and buttresses, at a 2.5 to 3 percent grade, that provides fish passage opportunities; (3) construction of a new castin-place concrete diversion structure with fish screen and fish return bypass that meets current NOAA and CDFW fish protection criteria; and (4) revegetation of the site.

All instream work will be limited to the low flow period of June 15-November 1, and restoration, construction, fish relocation, and dewatering activities within any wetted or flowing stream channel will occur within this period. The work will be completed outside of spawning, incubation, and rearing periods for listed fish, and will be consistent with the Biological Opinion issued by the NOAA Fisheries (2012) and the SONCC Recovery Plan (NOAA, 2014). Any impacts to fish habitat and species are temporary and of short duration, are limited to the duration of construction, and will result in long term benefits to the species by enhancing fish passage to potentially 7 km of upstream habitat and increased year-round flows to an additional approximately 2 km of the Little Shasta River downstream, thereby enhancing aquatic habitat. Protection measures consistent with the NOAA Biological Opinion (included in **Appendix D**) shall be implemented during construction to minimize impact to listed species and their habitat. Implementation of **MM 4.1** and **MM 4.2** will reduce impacts to coho during construction to less than significant with mitigation incorporated.

Oregon spotted frog breeding habitat is not present in the ditches at Hart Ranch or at the diversion on the Little Shasta River. However, when ditches are in use and full of water, frogs may use them for dispersal movements. All proposed work in or crossing the ditches will occur outside of the irrigation season in October-March when the ditches are dewatered. The proposed action will change the timing of future water delivery, however, will not directly impact frog habitat; therefore, impacts to the Oregon spotted frog are less than significant.

Hart Ranch supports potential nesting habitat for rufous and calliope hummingbirds, loggerhead shrike, olive-sided flycatcher, and willow flycatcher at the Hart-Height diversion and in woody riparian vegetation along the Little Shasta River. These avian species are dependent upon riparian vegetation, such as alders and willows, which will be affected by the proposed Project as a result of riparian vegetation removal due to channel recontouring and diversion relocation (selective riparian vegetation removal within 0.13 acre along the Little Shasta River). Although post-construction riparian vegetation planting is included in the Project, short-term effects to riparian vegetation will result and are limited to the Project footprint. The Project will not create any obstructions to flight patterns and riparian vegetation is available immediately adjacent to the Project site. Construction activities are scheduled to occur immediately adjacent to the habitat that could result in disturbance to nesting individuals, mitigation measures MM 4.3 and MM 4.4 will be implemented, minimizing disturbance to riparian vegetation and nesting birds. Short-term impacts to listed riparian-dependent species are less than significant with mitigation incorporated.

Hart Ranch supports sandhill crane nesting habitat (approx. 7.5 ac) in the wet, open meadows exhibiting bulrush and cattails within proximity to the stockwater system on the eastern toe of Dorris Hill. Nesting habitat will not be affected long-term by the Project as the new stockwater system includes a dedicated pipe and valve to keep this area wetted and in pre-project conditions with a maximum flow rate capacity of 65 gpm; however, construction activities are scheduled to occur immediately adjacent to the habitat that could result in disturbance to nesting individuals. Mitigation measures MM 4.5 and MM 4.6, will be implemented, therefore, minimizing disturbance to nesting cranes. Any short-term impacts to sandhill cranes are less than significant with mitigation incorporated. MM 4.7 will ensure long term maintenance of this wetland habitat following project construction. Project impacts to sandhill cranes are less than significant with mitigation incorporated.

As the location of juniper tree removal has not been identified, the potential exists to impact special status plant species during removal and transport of trees to the fish passage project area. Therefore MM 4.8 will be

implemented, minimizing impacts to special status plant species to a level that is considered less than significant with mitigation incorporated.

The Project will not affect the continued operation, maintenance, and repair of two existing diversions that serve the Hart Ranch. However, the Project, in combination with the draft SHA currently being negotiated with NOAA fisheries, will provide for a permanent instream dedication of 0.5 cfs, with an additional long-term dedication of up to 1.0 cfs and potential permissive dedication of the remaining water right by the Hart Ranch to add instream flow as a beneficial use. This will allow the Ranch the flexibility and opportunity to leave their water rights instream for fish, wildlife, and riparian benefit.

With implementation of mitigation measure MM 4.1, through MM 4.7, impacts to special status species are considered *less than significant with mitigation incorporated*.

- b) Riparian habitat occurs along the Little Shasta River at Hart Ranch and at the diversion site. Approximately 7,500 linear feet of riparian grazing management fencing will be installed along the north and south of the Little Shasta River at Hart Ranch and will result in approximately 0.7 miles of the river being fenced. Riparian habitat will be affected by the proposed Project; however, the effects will be short-term in nature and will only occur within the Project footprint. The Project includes planting the riparian zone with native shrub and tree species (estimated 750 trees) after installing the fencing. Additionally, at the site of the fish passage improvements post Project planting is planned, and MM 4.4 will reduce impacts to less than significant with mitigation incorporated.
- c) The Project area contains 0.34 acres of wetlands and "waters of the U.S." as regulated by the U.S. Army Corps of Engineers (ACOE). The majority of wetlands consist of irrigation supply ditch segments (0.31 acres), while only 0.03 acres are associated with work along the Little Shasta River. Construction activities could result in the temporary disturbance of jurisdictional waters. The Project includes formal wetland delineation and necessary Section 404 permits from the U.S. Army Corps of Engineers. Compliance with delineation and US ACOE permit will ensure that there is no net loss of jurisdictional waters and will reduce impacts to less than significant.
- d) Habitat within the Project area provides suitable spawning and over-summer habitat for Coho salmon as well as riparian habitat for migratory bird species. Please see a) and b) above for discussion. Project protection measures consistent with the NOAA Biological Opinion and MM 4.1, through MM 4.6 will reduce potential impacts to migratory species to *less than significant with mitigation incorporated*.
- e) The proposed Project will not conflict with any policies or ordinances. *No impact*.
- f) There are no habitat conservation plans adopted in this area. *No impact*.

Mitigation Measures:

MM 4.1: The Contractor shall implement all protection measures identified in the 2012 Biological Opinion issued by the NOAA Fisheries pertaining to future US Army Corps of Engineers Permits within Siskiyou and other northern California counties, and specifically identified in the Biological Resources Report for this Project (Appendix D) to minimize impacts to listed fish species and their habitat.

Timing/Implementation: Prior to and during construction activities.

Enforcement / Monitoring: CDFW, NOAA Fisheries.

MM 4.2: Prior to instream work at Hart Ranch, a snorkel survey shall be completed by a qualified biologist, to confirm the presence of special status species. If special status fish are identified within the Project Area, and prior to instream work at Hart Ranch fish shall be removed from the work area by a qualified biologist permitted with authorization to capture and relocate fish, including coho if present, and block nets consisting of fine-meshed net or screen, shall be installed in-channel above and below the work area. Mesh will be no greater than 1/8-inch diameter. The bottom of a seine must

be completely secured to the channel bed. Screens must be checked twice daily and cleaned of debris to permit free flow of water. Block nets shall be placed and maintained throughout the dewatering period and/or instream channel work at the upper and lower extent of the areas where fish will be removed. Block net mesh shall be sized to ensure salmonids upstream or downstream do not enter the areas proposed for dewatering and construction between passes with the seine.

Timing/Implementation: Following construction activities. Enforcement / Monitoring: CDFW, NOAA Fisheries.

MM 4.3:

If possible, conduct all vegetation removal (including trees for large wood structures) outside of the migratory nesting season (February 1 to August 31). However, if clearing of any vegetation and/or construction activities occur during the avian breeding window, preconstruction surveys for nesting migratory birds shall be conducted no earlier than 7 days prior to removal by a qualified wildlife biologist. Surveys shall be conducted in accordance with CDFW or USFWS survey protocol for each species. Survey area shall include the construction zone, including all vegetation removal and transport areas, staging areas, and a 300-foot radius surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm any nesting migratory birds. If active nests are found, the Contractor shall not conduct work within 300 feet of the active nest (or smaller buffer as approved by CDFW) until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be impacted by the Project.

Timing/Implementation: Prior to construction activities within the migratory bird nesting

season (February 1 to August 31).

Enforcement / Monitoring: CDFW, USFWS.

MM 4.4

Prior to grading activities associated with the fish passage improvements, the contractor shall salvage and store existing vegetation cuttings and willow transplants to be replanted following the Project completion.

Timing/Implementation: Prior to grading activities associated with the fish passage

improvements.

Enforcement/Monitoring: CDFW

MM 4.5

Migratory bird nesting surveys conducted in accordance MM 4.3 conducted prior to vegetation removal or construction activities shall be used to determine whether sandhill crane is nesting in the vicinity of Project activities. If CDFW determines that potential sandhill crane nesting habitat occurs within 500 feet of Project activities, any potential nesting habitat within the 500-foot radius shall also be surveyed for the presence of active sandhill crane nests. No construction activities shall occur during sandhill crane nesting season (March 1 to June 30) within 500 feet of the known sandhill crane nesting habitat identified on the eastern toe of Dorris Hill and identified in **Figure 5** or any other active sandhill crane nesting location identified during nesting bird surveys. If construction of the stockwater system occurs during this time period, temporary fencing shall be installed and regularly maintained to mark the 500-foot buffer and ensure construction exclusion from the known nesting area at Dorris Hill.

Timing/Implementation: During construction activities during the sandhill crane nesting

season (March 1 to June 30).

Enforcement/Monitoring: CDFW

MM 4.6

Should construction occur during the nesting season for sandhill cranes (March 1 to June 30) a biological monitor shall be on site during all hours of construction to ensure cranes are not disturbed. If disturbance to sandhill cranes is observed, all construction shall cease and the CDFW shall be immediately notified.

Timing/Implementation: During construction activities during the sandhill crane nesting

season (March 1 to June 30).

Enforcement/Monitoring: CDFW

MM 4.7

The wetland habitat at the toe of Dorris Hill shall be maintained by continuous flow, not less than 10 gpm, for the duration of the growing season, approximately from March through September, to mimic subsurface flow previously from the ditch. Wetland habitat shall be monitored by visual inspection two times per month during the growing season and shall consist of visual check for presence of soil saturation at the surface and presence and condition of bulrush plants. Soil shall be saturated to the surface during 4 out of 6 months of the growing season. Bulrush shall be present and covering at least 75% of the area. The plants shall be in healthy condition during the growing season. If plants are in poor condition or soil is not saturated, additional water shall be added to the wetland.

Timing/Implementation: During the growing season (March through September).

Enforcement/Monitoring: CDFW

MM 4.8

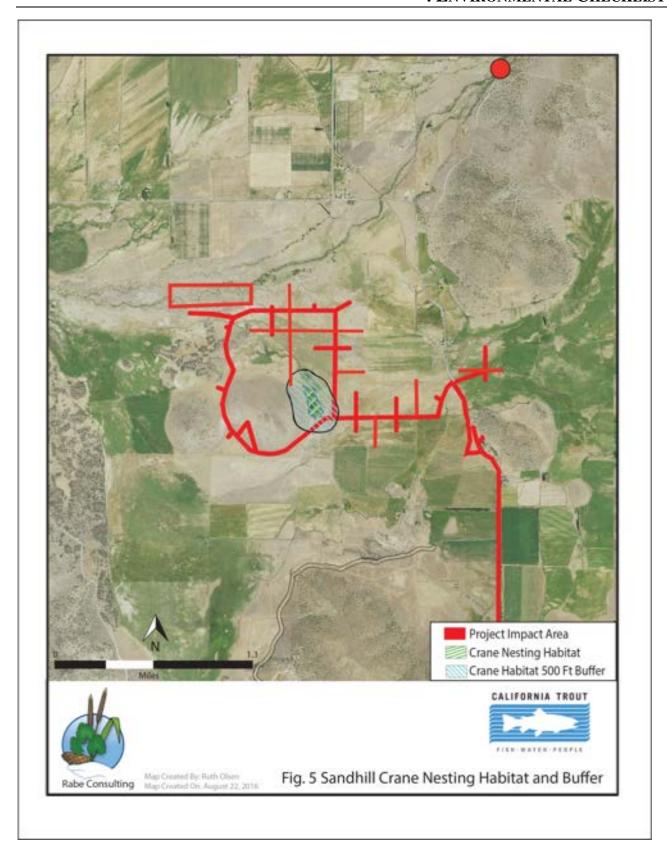
Prior to removal of juniper trees, the area of disturbance, including route of transport from trees to the construction site at the Little Shasta River, shall be surveyed for special status plant species and shall occur prior to any vegetation removal. Surveys shall be conducted by a qualified biologist according to the CDFW 2009 Protocols for *Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. Results of these surveys shall be sent to the following address: California Department of Fish and Wildlife, Attn: CEQA, 601, Locust Street, Redding, CA 96001.

Timing/Implementation: Prior to any vegetation removal.

Enforcement / Monitoring: CDFW.

Conclusions Related to Biological Resources:

The Project will have a *less than significant impact with mitigation incorporated* on biological resources with the implementation of **MM 4.1** through **MM 4.8**. It is anticipated the Project will increase available aquatic habitat for coho salmon, steelhead, and chinook by enhancing fish passage to potentially 7 km of upstream habitat and increase year-round flows to an additional approximately 2 km of the Little Shasta River downstream.



En	vironmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5.	CULTURAL RESOURCES. Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		\boxtimes		
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?				
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				
d)	Disturb any human remains, including those interred outside of dedicated cemeteries?				

A Cultural Resources Survey for the Project was completed by Native-X, Inc. Archaeological Services in November, 2016 (**Appendix F**). Investigation included a pre-field records search at the Northeast Information Center (NEIC) at California State University, Chico, and a complete coverage pedestrian surface survey of the Project area. The Cultural Resources review was completed in compliance with Section 106 of the National Historic Preservation Act standards, guidelines and principles.

The records search did not identify any sensitive cultural resources in the Project area. The records search results indicate that no previous cultural resource surveys have occurred within the current Project area and that there are no prehistoric or historic-period sites or features formally recorded or otherwise documented within the Project area. However, one geoarchaeological overview and three previous surveys have been completed, and three sites have been recorded, within one mile of the Project area.

The pedestrian surface survey completed on September 30, 2016, identified two sites: a segment of rock wall fence (HR01) located north of the Dorris Hill saddle and a water diversion structure (HR02) located at the origin of the Haight/Hart irrigation ditch on the Little Shasta River (existing Hart Ranch diversion structure). The rock wall fence (HR01) is likely historic, however, it has been used and maintained through the modern era. It is fitted with a post and wire gate. The Project calls for the installation of pipe through the rock wall fence, however, the proposed route is through the existing post and wire gate. It would not disturb the linear rock feature, and therefore, will not affect the site. The rock wall fence (HR01) remains unevaluated by the National Register of Historic Places (NRHP) because it continues for an unknown distance beyond the Project area and thus remains not fully recorded.

The water diversion structure (HR02) is likely historic in nature; however, it appears to have been in use through the modern era, with maintenance and modifications occurring as needed since its original construction. The Project calls for removal of the water diversion structure and construction of a new diversion structure a short distance upstream that meets current NOAA and CDFW fish protection criteria, allowing for improved fish passage along the Little Shasta River. While the structure (HR02) fulfills a historic function, and has historic concrete elements, the integrity of the site has been seriously compromised and is therefore not recommended as eligible to the National Register of Historic Places (NRHP).

The findings identified in **Appendix F** lead to the recommendation that the existing environment comprising the proposed Project is not eligible or potentially eligible for inclusion on the NRHP under any of the relevant criteria, nor significant per CEQA. Although the sites are identified as not eligible for inclusion on the NRHP, actual determination for these historic sites must be made by public agencies in consultation with the California State Historic Preservation Office (SHPO). No prehistoric sites were identified within the Project area.

Public Resources Code (PRC) §21083.2 requires planning agencies to determine if a Project may have a significant effect on historical resources or unique archaeological resources. The California Code of Regulations (CCR) §15064.5

defines a significant effect on historical resources. CCR §15064.5 (a)(3) describes an "historical resource" and PRC §21083.2(g) presents criteria for identifying a unique archaeological resource.

Discussion of Checklist Answers:

- a) Cultural resources investigation identified two sites of historic significance within the Project area: a segment of rock wall fence (HR01) and a water diversion structure (HR02). The rock wall fence remains unevaluated by the NRHP because it continues for an unknown distance beyond the Project area and thus remains not fully recorded. The Project alignment goes through an existing gap (or gate) in the wall and therefore will not result in disturbance to the rock wall fence. The water diversion structure (HR02) is recommended as not eligible for the NRHP due to the integrity of the site being seriously compromised. Regardless of this finding, unanticipated and accidental historical discoveries are possible during Project implementation and have the potential to impact unique historical resources, therefore mitigation measures MM 5.1 and MM 5.2 have been incorporated into the Project. Project impacts to historical resources are considered to be *less than significant with mitigation incorporated*.
- b) Cultural resources investigations identified no sites of archeological significance within the Project area. Regardless of this finding, unanticipated and accidental archaeological discoveries are possible during Project implementation and have the potential to impact unique archaeological resources, therefore mitigation measures MM 5.1 and MM 5.2 have been incorporated into the Project. This is considered a less than significant impact with mitigation incorporated.
- c) A records search of the Northeast Information Center at California State University, Chico did not identify any documented paleontological sites within the Project area. Regardless of this finding, unanticipated and accidental discoveries of paleontological resources are possible during Project implementation and have the potential to impact paleontological resources. Mitigation measure MM 5.3 has been incorporated to reduce potential impacts and therefore the Project is considered to have a less than significant impact with mitigation incorporated.
- d) Cultural resources investigations did not identify any Native American archaeological sites or evidence to suggest that human remains may be present within the Project area. Regardless of this finding, there is a possibility of the unanticipated and accidental discovery of human remains during ground-disturbing Project-related activities. With implementation of MM 5.3, this impact is considered a less than significant impact with mitigation incorporated.

Mitigation Measures:

MM 5.1: If, during the course of Project implementation, cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) are discovered work shall be halted immediately within 50 feet of the discovery, the CDFW shall be immediately notified, and a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to determine the significance of the discovery. The CDFW shall consider mitigation recommendations presented by the professional archaeologist and implement a measure or measures that the SVRCD deems feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures.

Timing/Implementation: During construction activities.

Enforcement/monitoring: CDFW

MM 5.2: Prior to the commencement of Project ground disturbing activities, all construction personnel shall be informed of the type(s) of cultural resources that might be inadvertently uncovered in the area and protocols to be implemented to protect Native American human remains and any subsurface cultural resources.

Timing/Implementation: Prior to construction activities.

Enforcement/monitoring: CDFW

MM 5.3: If, during the course of Project implementation, human remains are discovered all work shall be

halted immediately within 50 feet of the discovery, the CDFW shall be immediately notified, and the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the

procedures outlined in the CCR §15064.5(d) and (e) shall be followed.

Timing/Implementation: During Project construction activities.

Enforcement/monitoring: CDFW

Conclusions Related to Cultural Resources:

The Project will have a *less than significant impact with mitigation incorporated* on cultural resources with the implementation of MM 5.1 through MM 5.3.

En	vironmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.	GEOLOGY AND SOILS. Would the project:				
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to				
	Division of Mines and Geology Special Publication 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?				
b) c)	Result in substantial soil erosion or the loss of topsoil? Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				

Several earthquake faults exist around the Shasta Valley area as indicated on the *Fault Activity Map of California*. Some notable faults in the Project vicinity include the Yellow Butte Fault to the southeast of the Project area near Sheep Rock, and a Quaternary age fault that runs through Mt. Shasta, located to the south of the Project area. Additionally, a number of pre-Quaternary (older than 1.6 million years) faults exist near Yreka and north of Montague, west and north of the Project area. None of these faults have shown evidence of any activity within the last 1.6 million years. The nearest recently active faults are the Cedar Mountain Fault Zone 25 miles east in the Hebron-Macdoel area and faults located 90 miles east in the Klamath Falls area (California Department of Conservation, California Geologic Survey, 2016).

The Seismic Safety and Safety Element of the Siskiyou County General Plan states that over a 120-year period, only nine or ten earthquakes capable of "considerable damage" have occurred in the Project vicinity. No deaths have been reported from these quakes and building damage was considered minor. No known damage has resulted from an earthquake in the Shasta Valley area. Regardless, the California Building Code places the Project area in Seismic Zone 3, defined as an area of potentially major damage from earthquakes corresponding to intensity VII on the Modified Mercalli Scale.

Landslides are not prominent in the area, since the mountains of the region consist of stable bedrock material with little likelihood of sliding. While the Shasta Valley is in a hilly region, normal construction practices limit the amount of potential erosion, and the Building Code addresses necessary construction techniques to accommodate some of the soils in the area with expansive characteristics. Additionally, Project activity is primarily located in the areas utilized for agriculture, areas with slopes less than 10%, with the exception of the new water tanks and access road to be located on Dorris Hill. Existing slopes on Dorris Hill are between 10% and 50%. The elevated storage tanks will be installed on a newly constructed gravel pad on Dorris Hill that will require excavation, material placement, and compaction over an area of approximately 2,400 square feet. It is estimated that cut and fill quantities will be 1,500 cubic yards. A 14-foot-wide by 750 feet long graveled road with a slope of approximately 8% will be constructed to

access the tanks from the existing ranch road. All cut and fill will be balanced with no need to export material. Imported engineered fill or gravel for the pad will be from a permitted source or from the existing on-ranch borrow pit. **Appendix A** includes 75% design stage plans for the stockwater system improvements which include the new water tanks, pad, and access road.

Most of the Project area consists of alluvial or glaciofluvial soils which consist primarily of poorly to well drained sandy loams underlain with hardpan. Typically, these soils have minimal shrink-swell characteristics, have slight to moderate erosion hazard potential, and contain slopes which range from 0-9 percent. Only those soils on Dorris Hill associated with the new water tanks and access road have slopes greater than 9 percent. Final grading of the access road will be not more than 8%.

Discussion of Checklist Answers:

a)

- i) There are no known active or potentially active faults within the Project area, although a north-south trending fault runs through the top of Mount Shasta and there are older faults in the Sheep Rock area to the southeast of the Project area. There are no known earthquake faults within the Project area, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map and this impact is considered *less than significant*.
- ii) The Project area, along with all of Siskiyou County, is located in Uniform Building Code (UBC) Seismic Zone 3. This indicates that the area is subject to earthquakes that may cause minor to moderate structural damage. Earthquakes centered about 20 miles east of Mt. Shasta were recorded in 1978 with Richter magnitudes of 4.0 to 4.6. However, an earthquake history compiled for the Seismic Safety and Safety Element of the Siskiyou County General Plan indicated that over a 120-year period, no deaths related to earthquakes have been recorded, and reported building damage has never been more than "minor." All construction will occur pursuant to the California Building Code. This impact is considered less than significant.
- iii) Liquefaction usually occurs when saturated granular soil deposits lose their strength due to sudden excess in water pressure induced by a seismic event. Since seismic activity is uncommon in the Project area, liquefaction is not likely. This impact is considered to be *less than significant*.
- iv) Landslides typically will not be a problem in the Project area as the area generally consists of slopes less than 10 percent, with the exception of the new pad and access road for the new water tanks located on Dorris Hill. Construction of the access road and excavated pad for the new water tanks will be overseen by the Project engineer, and design includes compaction and maximum slope parameters in order to minimize potential landslides or earth moving following construction. Further, the Project contains measures as defined in the Project Description to reduce effects of erosion and potential landslide to a *less than significant* level.
- b) Construction activities will include earth moving in the form of trenching, excavating, backfilling, and associated irrigation improvements, and habitat enhancement. The proposed project may be required to obtain a Storm Water Pollution Prevention Permit, and prepare a Storm Water Pollution Prevention Plan, which will include best management practices (BMPs) to reduce impacts to water quality which will minimize impacts to soil erosion. This impact is considered to be *less than significant*.
- c) See a) above. Less than significant.
- d) The project is primarily located in uplands with poor to well drained soils that do not have shrink-swell characteristics. Project area soils are primarily underlain with hardpan, affecting drainage characteristics. Construction activities will be required to conform to the California Building Code, therefore the project will have a *less than significant impact*.

e) The project does not involve the use of septic tanks or alternative wastewater disposal. *No impact*.

Conclusions Related to Geology and Soils:

Conformance with state building code regulations and project engineering of all physical structures that may be affected by geotechnical stability will reduce any impacts related to geology and soils. Therefore, impacts are considered to be *less than significant*.

En	vironmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
7.	GREENHOUSE GAS EMISSIONS. Would the project:				
a)	Generate greenhouse gas emissions, either directly or indirectly,			\boxtimes	
	that may have a significant impact on the environment?				
b)	Conflict with an applicable plan, policy or regulation adopted				
	for the purpose of reducing the emissions of greenhouse gases?				

Overview:

The project is an irrigation improvement and aquatic habitat restoration project and will result in temporary greenhouse gas (GHG) emissions during construction and associated earth moving activities. Long term, the project will result in one new booster pump which will result in an annual electrical usage of 1,800 kw-h above existing electrical use (see Section 4.3, Air Quality for additional discussion). Two new solar panels will be installed to operate electronic fish screen controls and flow meters. No additional new electrical needs will result from the project, as the existing electrical supply is anticipated to satisfy all other needs of the project. The project has no other long term impacts to GHG emissions. Siskiyou County has been designated as an attainment area for all state and federal standards (Olson, 2016).

Discussion of Checklist Answers:

- a) The project is a river restoration and water management project related to ranching irrigation improvements and will result in temporary GHG emissions during construction. The project will have minor short term air quality and GHG emissions associated with construction. In order to reduce the potential for particulate matter resulting from construction, this initial study includes **MM 3.1**. Long term, the project will result in 1,800 kw-hr of annual electrical use to operate the new booster pump, the equivalent of approximately 3,000 miles driven by an average passenger vehicle (EPA, 2016). This impact is considered to be *less than significant*.
- b) The project will not conflict with any adopted plans, policies or regulations adopted for the purpose of reducing emissions of greenhouse gases. *No impact*.

Conclusions Related to Greenhouse Gas Emissions:

The proposed project will have a *less than significant* impact on greenhouse gas emissions either directly or indirectly.

En	vironmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
8.	HAZARDS AND HAZARDOUS MATERIALS. Would the	project:			
a)	Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?				
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?				
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				
e)	For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?				
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or				
g)	working in the project area? Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation				
h)	plan? Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as follows:

A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed. (California Code of Regulations, Title 22, Section 662601.10)

Chemical and physical properties cause a substance to be considered hazardous. Such properties include toxicity, ignitability, corrosivity, and reactivity. CCR, Title 22, Sections 66261.20-66261.24 define the aforementioned properties. The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies.

Large cases of hazardous materials contamination or violations are handled by the North Coast Regional Water Quality Control Board (RWQCB) and the State Department of Toxic Substances Control (DTSC). It is not at all uncommon for

other agencies to become involved when issues of hazardous materials arise, such as the Air Pollution Control District, and both the federal and state Occupational Safety and Health Administrations (OSHA).

Under Government Code Section 65962.5, the California Department of Toxic Substances Control (DTSC) maintains a list of hazardous substance sites. This list, referred to as the "Cortese list", includes CALSITE hazardous material sites, sites with leaking underground storage tanks, and landfills with evidence of groundwater contamination. The most recent Cortese list, accessed via the internet database in December 2010, does not identify any hazardous materials sites within the project area.

Discussion of Checklist Answers:

- a) No transport, use or disposal of hazardous materials will occur as a result of the proposed project. No impact.
- b) No known hazardous materials are present within the project site and no hazardous materials will be released into the environment from this project. Therefore, the project will not result in the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. *No impact*.
- c) There will be no hazardous emissions from the project, and therefore the project will not have any affect on a school site. There is no school located within one-quarter mile of the project area. *No impact*.
- d) The project is not located on a site known or listed as having hazardous material as noted by the most recent Cortese list (CA Department of Toxic Substances Control, 2016). *No impact*.
- e) The project is not located within an airport land use plan area. *No impact*.
- f) The project is not located within the vicinity of a private airstrip. *No impact*.
- g) The proposed project will not likely cause road closures or detours as the project is primarily located within private properties, and access to such will not interfere with traffic patterns on public rights-of-way. Work within the public right-of-way will maintain one-way traffic at all times, and no road closures are anticipated. *No impact.*
- h) Being an agricultural project and not near vegetation typically associated with wild land fires, the project will not expose persons to injury from such a fire. *No impact*.

Conclusions Related to Hazardous Materials:

The proposed project will have *no impact* on hazards and hazardous materials.

En	vironmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
9.	HYDROLOGY AND WATER QUALITY. Would the project:		•		
a)	Violate any water quality standards or waste discharge requirements?			\boxtimes	
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses for which permits have been granted)?				
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or				
f)	provide substantial additional sources of polluted runoff? Otherwise substantially degrade water quality?			\boxtimes	
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			\boxtimes	
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?				
j)	Inundation by seiche, tsunami or mudflow?				\boxtimes

The project is located in the Shasta Valley, within the Klamath River Hydrologic Basin. The mean annual precipitation in the Shasta Valley is approximately 11 to 17 inches. The climate in this region is characterized by dry summers with high daytime temperatures and wet winters with moderate to low temperatures. About 75 percent of the annual precipitation falls between October and March and generally produces an adequate snowpack in the higher mountain ranges.

The Little Shasta River flows through the project area, with a watershed area of approximately 330 square kilometers. The Little Shasta River flows generally westward for approximately 39 kilometers from an elevation of 8,277 on the western slopes of the Cascade Mountain Range to the confluence with the Shasta River at an elevation of 2,730. The river exhibits three distinct channel reaches: a steep headwaters reach, a moderate-gradient reach in the foothills section, and a low-gradient reach across the Little Shasta River Valley. Streamflow is derived from both surface runoff (snowmelt and rainfall) and groundwater (springs and seeps). Surface runoff derived from seasonal rainfall and snowmelt augments spring-fed baseflows in the Little Shasta River. Surface water and groundwater are used to support domestic, agricultural, municipal, and ecosystem water uses in the Little Shasta River Valley (Nichols A, et al, 2016) including use as a migration route for salmon and steelhead and provides spawning and rearing habitat for these fish (McBain & Trush, 2013).

Development of water resources in the Little Shasta River watershed has been ongoing since 1855, with the oldest water rights pertaining to the appropriation of surface waters from the Little Shasta River and nearby springs. The amount and priority date of each surface water right is formalized in the Shasta River Adjudication Proceeding Judgement and Decree, and a Watermaster organizes the diversion priorities. Summer water rights to the Little Shasta River and its tributaries and springs extend from March 1 through October 31, while winter rights occur during the remaining months of the year (Nichols A, et al, 2016).

The highest priority summer water rights in the Little Shasta River Basin are all located upstream from the Hart Ranch diversion structure (river kilometer 18.5). These water rights permit the diversion of surface water from both off-channel springs and the Little Shasta River. During periods of low streamflow (e.g. summer), the cumulative total of these highest priority water rights can exceed the amount of available surface water. With minimal surface or groundwater inflows to the Little Shasta River below RK 18.5, the lower reaches of the river can run dry during low streamflow periods. During 2015, a dry year, streamflow at RK 4.3 ceased in June and the river remained dry until the middle of November (Nichols A, et al, 2016).

The Project lies within areas mapped by the Federal Emergency Management Agency (FEMA), Flood Insurance Rate Mapping program (Community Panel Number 06093C1650D). The majority of the Project area lies above the 100-year flood event elevation (FEMA Zone X), while a few areas immediately along the Little Shasta River lie within the 100-year flood event elevation (FEMA Zone A). Those components of the Project that are within FEMA Zone A include the work associated with the fish passage improvements and the riparian planting along the Little Shasta River. All other work associated with the Project is entirely outside of 100-year flood elevation.

Hydraulic Assessment of the fish passage component of the Project was completed by Cascade Stream Solutions in October 2016 to identify the Project effect on flows within the Little Shasta River (**Appendix G**). The Project includes recontour of the stream channel, removal of the exiting diversion structure, and construction of a new diversion structure. A County bridge crosses the Little Shasta River immediately downstream of the proposed Project area. Existing flood flows exceed the conveyance capacity of the primary channel and are conveyed across the floodplain as shallow overland flow. Existing and post-project conditions were compared for a range of flows utilizing standard computer modeling analysis for hydraulics of water flow (HEC-RAS). Hydraulic characteristics were computed for steady state flows of 750, 1,000, 1,500, and 1,700 cfs (Howard, 2016).

Discussion of Checklist Answers:

- a) CalTrout or the project contractor will prepare a Storm Water Pollution Prevention Plan (SWPPP) pursuant to Regional Water Quality Control Board standards and subject to RWQCB review. The proposed Project will include instream work associated with construction of the fish passage improvements and irrigation diversion structure. Short term construction activities may temporarily impact water quality, though CalTrout will work closely with regulatory agencies to minimize all potential water quality impacts. Habitat and water quality protection measures identified in the NOAA Biological Opinion will be implemented to minimize impacts to listed species and water quality (see MM 4.1). Additionally, the Project is subject to 401 permit from the Regional Water Quality Control Board, and conditions therein will ensure water quality impacts are minimal during and following construction. One of the overall goals of the Project is to improve water quality in the Little Shasta River through an initial permissive instream dedication of up to 1.5 cfs and an additional permissive dedication up to the remainder of the right of 19.804 cfs upon approval of the SHA which is currently being negotiated. Project impacts to water quality are considered to be *less than significant*.
- b) The Project includes improvements to existing agricultural irrigation infrastructure in an effort to improve water management efficiencies and instream flows in the Little Shasta River, thereby improving water quality. The Project includes the addition of a booster pump to an existing agricultural well and pump and connection of the Mainline pipe system which irrigates the eastern portion of the ranch to three existing groundwater wells. The retrofit of the stockwater well and construction of the stockwater component of this Project will allow for the ranch to utilize groundwater (instead of river water) for stock in the northern portion of the ranch. This component of the Project will result in minimal increases in groundwater pumping to supply the new stockwater system. At peak demand, the stockwater system will operate at a flow rate of 11 GPM (0.02 cfs) to supply the troughs, with an additional 65 GPM (0.14 cfs) available to supply the consumptive needs of

the seasonal wildlife habitat near the base of Dorris Hill. A total post-project flow rate of approximately 0.16 cfs will be required year round for the stockwater system. The Main Pipeline replacement is not anticipated to increase annual groundwater withdrawal. *Less than significant impact*.

c) The Project will result in the alteration of existing irrigation infrastructure in the Shasta Valley. Although the Project does include work within the Little Shasta River at the location of the diversion, habitat and water quality protection measures identified in the NOAA Biological Opinion will be implemented to ensure that temporary impacts to erosion or siltation associated with construction are minimized. The SWPPP and habitat and water quality protection measures identified in the NOAA Biological Opinion will ensure that temporary impacts associated with construction are minimized. Long term impacts as a result of improvements to fish passage along the Little Shasta River include recontour of the channel and replacement of the existing diversion structure. Hydraulic modeling concludes that although post project conditions result in minor change to the immediate Project channel reach, no change in hydraulic conditions at the existing County Bridge, immediately downstream of the project area result. Deposition and scour near the bridge are not anticipated to change significantly due to the Project because the Project is of limited size, will be constructed to remain stable during extreme flows, and will not change sediment transport potential upstream or downstream of the Project area. Sediment that reaches the Project reach will be conveyed through the reach (Appendix G).

Upon completion of the Project, up to 1.5 cfs of water will be available to be permanently dedicated to instream flows, a beneficial management activity included in a draft Safe Harbor Agreement currently being negotiated. The hydraulic assessment of the Project evaluated flows up to 1,700 cfs (between a 10 and 25-year peak flow event) with no effect on downstream water elevations (Howard, 2016). The addition of 1.5 cfs, as potentially resulting following Safe Harbor Agreement, is negligible on downstream flood elevations. Therefore, Project impacts to the existing drainage pattern is considered to be *less than significant*.

- d) See c) above. Work along the Little Shasta River is within the 100-year flood zone. All improvements have been designed and engineered to have a negligible impact on flood flows as is modeled by the *Little Shasta River Fish Passage Project: Bridge Impact Hydraulic Assessment* (**Appendix G**). This impact is considered to be *less than significant*.
- e) The proposed Project does not include new impervious surfaces or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems. As the Project consists of irrigation infrastructure and instream habitat improvements, there will be no additional sources of polluted runoff as a result; therefore, this impact is considered to be *less than significant*.
- f) See a), c) and e) above. Less than significant.
- g) The Project does not include the construction of housing and therefore will not place housing within the 100-year flood zone. The Project will therefore have *no impact*.
- h) The Project components that will be within the 100-year flood elevation include the channel realignment and replacement of the existing diversion structure along the Little Shasta River. All structures have been designed and engineered to minimize impacts to flood flows, and will not impede or redirect flood flows. This impact is considered to be *less than significant*.
- i) Please see c), g) and h) above. The Project will not result in the failure of a levee or dam, nor will it expose people or structures to a significant risk of loss, injury or death involving flooding. This impact is considered to be *less than significant*.
- j) The Project will not result in, or be subject to impacts associated with, inundation by seiche, tsunami, or mudflow. Please see **Section 4.6**, **Geology and Soils**. *No impact*.

Conclusions Related to Hydrology and Water Quality:

By increasing instream flows, fencing riparian habitat, managing grazing, and reestablishing woody riparian vegetation, the Project is expected to have a positive impact on the Little Shasta River with regard to water quality and improved agricultural water management opportunities. Although short-term water quality issues may be present during construction, impacts associated with hydrology are considered to be *less than significant*.

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
10. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community? b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or				
mitigating an environmental effect). c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				

The Project is located in the northern portion of the Shasta Valley, an area characterized by large-acreage agricultural operations, primarily cattle grazing, alfalfa, and other mixed grains. The Shasta Valley encompasses approximately 340 square miles. The Shasta River, a perennial tributary to the Klamath River, flows from south to north, and along with its tributaries (including the Little Shasta River) provides much of the irrigation water to properties adjacent to and within proximity to the Shasta River, Little Shasta River, and major tributaries. Interstate 5 is situated along the west-central part of the valley running north to south, and State Route 97 is situated in the southeast portion of the valley running from Interstate 5 south of the valley towards the northeast. The Shasta Valley is surrounded by open range land managed by the BLM, National Forest Lands, and private timber lands.

The Land Use Element of the Siskiyou County General Plan is prepared differently from many contemporary approaches in land use planning, and involves the preparation of a series of overlay maps identifying development constraint areas, contrary to many general plans which identify Land Use designation. Therefore, the Siskiyou County General Plan does not assign land use designations, but rather through the utilization of overlay maps identifying development constraints, direct the appropriate land use for each property, or area of the County.

The majority of the Shasta Valley is unmapped by the Land Use and Circulation Element constraints maps, with the exception of some areas of the valley that are mapped for flood hazard, wildfire hazard, and prime agricultural soils (General Plan Land Use and Circulation Element, maps 1 through 14). As described in **Section 3**, **Project Description**, of this document, the Project involves improvements to irrigation systems and fish passage in an effort to improve water management efficiencies and to improve flows and water quality in the Little Shasta River. The Project will not require any changes in land use, either directly or indirectly.

Discussion of Checklist Answers:

- a) The Project is located on large acreage private agricultural lands primarily utilized for cattle grazing and will not result in the division of any existing community. *No impact* is expected.
- b) The Project will not conflict with any applicable plans that have jurisdiction over the Project area. The Project is consistent with the County's General Plan and Zoning Ordinance. Additionally, the Project is consistent with the Basin Plan for the North Coast Regional Water Quality Control Board and the Shasta River TMDL Action Plan. The Project will be consistent with applicable land use plans and will have *no impact*.
- c) See **Section 4.4, Biological Resources**. There are no habitat conservation or natural community conservation plans that are applicable to the site. *No impact*.

Conclusions Related to Land Use and Planning:

The proposed Project will have *no impact* on land use within the unincorporated area of Siskiyou County.

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
11. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				

Historically, gold mining was responsible for the establishment of the City of Yreka located to the west of the Project area, though little or no mining was done along the Little Shasta River within the Project vicinity. Although some dredge mining still takes place on the lower Shasta River and Klamath River north of the Project, as well as a small amount of panning for gold, the resource is essentially depleted, and no longer plays a direct role in the area's economy.

The State Mining and Geology Board has the responsibility to inventory and classify mineral resources and could designate such mineral resources as having a "statewide" or "regional significance" and then the local agency must adopt a management plan for such identified resources. At this time, there are no plans to assess local mineral resources for the Project area or Siskiyou County.

Mining within the County is subject to approval by the Siskiyou County Board of Supervisors through a Conditional Use Permit based upon the benefits and impacts to the County, and preparation and approval of a Reclamation Plan is required consistent with the California Surface Mining and Reclamation Act (SMARA).

Discussion of Checklist Answers:

- a) The Project does not include any mining activities or other activities that would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. All materials for fill requirements will be sourced from existing permitted operations, or an on-ranch borrow pit. The Project is a water management, irrigation improvement, and fish passage project and will have *no impact* on mineral resources.
- b) See a) above. There are no locally important mineral resources delineated on the County General Plan within the Project Area. Therefore, there will be *no impact* on mineral resources.

Conclusions Related to Mineral Resources:

The project will have *no impact* on mineral resources within the area.

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
12. NOISE . Would the project:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?				
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			\boxtimes	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				

Noise sources in the Shasta Valley include agricultural operations, including the operation of tractors, trucks, livestock, frost protection operations, and other agricultural noises. The Shasta Valley is also affected by noise from Interstate 5, SR 97, operations of the Central Oregon and Pacific Railroad, and the Siskiyou County and Weed Airports. All of these noise sources are located more than two (2) miles from the project, and are not prominent noise sources in the project area. Generally, the project area noise environment is characterized by rural agricultural operations. Surrounding uses include agriculture and open space.

Discussion of Checklist Answers:

- a) The project will generate temporary noise during construction that may affect the private property owners whose property the project is located on and adjacent to for access. Construction traffic noise would be limited in frequency and duration and would be similar to other recurring sources of noise from ongoing agricultural operations. No other noise sensitive receptors are located in the vicinity of the project, except for adjacent agricultural residences, which are typically separated by large acreage. This impact is considered to be *less* than significant.
- b) During grading and construction operations the project would generate ground-borne vibration. However, this will be a temporary impact for the duration of construction, and will be isolated to the immediate construction area, and is therefore considered to be *less than significant*.
- c) See a) above. The project will not result in the long-term increase in ambient noise levels within the project area, with the exception of the occasional operation of one new electrical irrigation booster pump, which is located more than ¼ mile from the closest residence. The resultant increases in ambient noise levels are considered to be *less than significant*.
- d) See a) above. This impact is considered less than significant.
- e) The project is not located within an airport land use plan area. *No impact*.

f) The project is not located within the vicinity of a private airstrip. *No impact*.

Conclusions Related to Noise:

The project is located in the Shasta Valley, an area characterized by rural agriculture, with associated agricultural noise sources. The project will have a *less than significant* impact on ambient noise levels in both the short and long term.

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
13. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g.,				
through extension of roads or other infrastructure)? b) Displace substantial numbers of existing housing, necessitating				\boxtimes
the construction of replacement housing elsewhere? c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				

The population of the Shasta Valley is approximately 5,000 people. There is not one defined census tract for the Shasta Valley, therefore this population count is an estimate based upon various census tracts that are included partially, or entirely, within the Shasta Valley (U.S. Census Bureau, 2016). The project will not add directly or indirectly to the housing stock or population in the region. The proposed project includes improvements to a number of existing agricultural irrigation facilities, and will have no impact on population and housing in the region.

Discussion of Checklist Answers:

- a) The proposed project consists of improvements to a number of existing agricultural irrigation facilities in the Shasta Valley and will not directly or indirectly induce population growth within the region. The project will have *no impact* on the population of the region.
- b) The project is located on existing agricultural acreages that are primarily utilized for grazing cattle. The project will not displace any housing or people. *No impact*.
- c) See b) above. No impact.

Conclusions Related to Population and Housing:

The proposed project does not include the creation of or the displacement of housing units and will not directly or indirectly impact the population of the region. The project will have *no impact* on population and housing.

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
14. PUBLIC SERVICES . Would the project result in substantial ad	verse physical i	mpacts associa	ited with the p	provision
of new or physically altered governmental facilities, need for new	v or physically	altered gover	nmental facil	ities, the
construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios,				e ratios,
response times or other performance objectives for any of the following public services:				
a) Fire protection?				
b) Police protection?				\boxtimes
c) Schools?				\boxtimes
d) Parks?				\boxtimes
e) Other public facilities?				\boxtimes

FIRE PROTECTION

Fire protection services for the project area are provided by a number of volunteer fire departments primarily located within the communities of Montague, Mayten, Yreka, and Grenada. These departments are primarily, or entirely, staffed by volunteers. Additionally, CalFire provides fire protection services to the project area, with stations in Weed and Yreka. CalFire and the volunteer fire departments operate with mutual aid agreements in order to fully serve the unincorporated areas of Siskiyou County, including the project area. The landscape of the project area is primarily grasslands that are regularly grazed, and the threat of fire is not common with the exception of the occasional structure fire.

POLICE PROTECTION

Police protection services within the project area are provided by the Siskiyou County Sherriff's Department, which operates from the main station located at 305 Butte Street, Yreka. The Department anticipates that the current police force will be adequate to provide police protection needs to County residents at the same level of service into the foreseeable future, barring a large increase in population due to a major change such as a large employer locating in the County.

SCHOOLS

The project area is served by a number of elementary schools (K-8), located within the communities of Montague, Grenada, Big Springs, and Yreka. The area is served by the Yreka Union High School District.

RECREATION

The project area is characterized by rural agricultural lands, and recreation centers are located in rural towns that surround the project area, including Montague, Big Springs, Grenada, and Yreka. These communities have community parks, community centers, as well as organized recreational opportunities, such as gymnasiums, pools, sports leagues, and other facilities.

Discussion of Checklist Answers:

- a) The project will have no impact on fire protection services within the project area. No impact.
- b) The project is an agricultural water management project and will have *no impact* on police protection services.

- c) The project will not result in any population change, nor will the project impact school operations or enrollment levels. See section 4.13 for further discussion of project impacts to population growth. *No impact*.
- d) The project will not impact any parks, nor will it result in a population change that would indirectly impact parks and recreational services. *No impact*.
- e) The project will have *no impact* on other governmental services.

Conclusions Related to Public Services:

The project is limited to agricultural irrigation improvements on existing agricultural lands. The project will not result in either a direct or indirect impact to public services. *No impact.*

4 ENVIRONMENTAL CHECKLIST

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
15. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				
b) Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?				

Overview:

The majority of the land within the project vicinity is privately owned and public recreational opportunities are limited. Public recreational opportunities exist within the communities and cities that surround the project area, including Montague, Big Springs, Grenada, and Yreka. Between the communities, cities, schools, and private recreational facilities in and around the project area, there is a well-rounded provision of programs and activities available to project area residents. Recreational facilities include playgrounds, parks, pools, ball fields, trails, theaters, fitness centers, and sports leagues. Additionally, opportunities for dispersed recreational activities exist on US Forest Service, Bureau of Land Management lands, and public right-of-way's that are in the vicinity of the project.

As identified in **Section 4.14, Public Services,** the proposed project work is limited to water management improvements on existing agricultural lands. Project work is not anticipated to have an effect on recreational opportunities either directly or indirectly.

Discussion of Checklist Answers:

- a) The project will not result in increased use of existing recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. *No impact.*
- b) The project does not include recreational facilities, nor does the project require the construction or expansion of recreational facilities. The project will not interrupt traffic flow on public rights-of-way, and therefore dispersed recreation that utilizes these facilities will not be impacted. *No impact*.

Conclusions Related to Recreation:

Please see **Section 14, Public Services** for further discussion of recreational facilities. The project is limited to water management improvements on existing agricultural lands, and will not impact, either directly or indirectly, recreational facilities. *No impact*.

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
16. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				
e) Result in inadequate emergency access?			\bowtie	
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				

Overview:

The project is located in central Siskiyou County and is served by Interstate 5, State Routes (SR) 3 and 97. Within the project area County roadways, including Lower Little Shasta Road, Harry Cash Road, and Hart Road, provide traffic circulation and connectivity to the larger roadways.

The County of Siskiyou provides a public bus system, Siskiyou Transit and General Express (STAGE) providing transportation to the communities in Siskiyou County generally along I-5. The project area is rural in nature, and roadways which access the project area are favorable for recreational road bicycling. Pedestrian transportation is not typically a viable means of transportation in the project area due to the rural nature.

Discussion of Checklist Answers:

- a) Implementation of the proposed Project may cause a short-term, isolated increase in traffic on Project area roadways during construction which is not substantial in relation to the existing traffic load and capacity of project area roadways. Traffic increases will include up to 5 additional employees to implement the Project for each phase, resulting in 10 daily trips. Project components are expected to be implemented in sequence. Therefore, the Project is expected to result in up to 10 additional trips per day during construction, plus additional trips for deliveries of supplies and materials, which are not expected to be more than 8 trips per day and will be intermittent in nature and isolated to those times of materials delivery. The Project will not result in a long-term increase in traffic. The Project will not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of circulation systems in the Project area. This impact is considered to be *less than significant*.
- b) As identified in a) there will be no cumulative traffic impact associated with the proposed Project, and the Project will not result in congestion. Therefore, the Project impact is considered to be *less than significant*.

4 ENVIRONMENTAL CHECKLIST

- c) There will be no affect on air traffic patterns as a result of the Project. No impact.
- d) The Project will require two pipe alignment crossings of Harry Cash Road, both of which will utilize standard trenching methods. One way traffic will be maintained at all times during construction. Following construction, roadways will be patched and paved to match pre-Project conditions, and therefore will not increase hazards due to a design feature. Additionally, there will be no change in uses as a result of the Project and therefore the Project will not result in incompatible uses. Less than significant impact.
- e) The Project is located on private properties, all of which are accessed via public rights-of-way. The Project may result in a short-term increase in traffic on area roadways associated with construction activities as described in a) above. This increase in traffic will be minimal in nature, short-term, and isolated to the immediate access locations for the Project area and is not anticipated to result in an impact to emergency access. This impact is considered to be *less than significant*.
- f) The Project will not impact any existing public transit, bicycle or pedestrian facilities or otherwise decrease the performance or safety of such facilities. *No impact*.

Conclusions Related to Transportation and Circulation:

Project impacts to transportation and circulation will be short-term in nature and will be isolated to the immediate access points to the Project location, and will be limited to the time of construction. Impacts to traffic and circulation as a result of the proposed Project will be *less than significant*.

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
17. TRIBAL CULTURAL RESOURCES. Would the project cause	a substantial	adverse change	in the signifi	cance of
a tribal cultural resource, defined in Public Resources Code section	n 21074 as	either a site, f	eature, place,	cultural
landscape that is geographically defined in terms of the size and sco	ope of the lan	ndscape, sacred	place, or ob	ject with
cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of			\boxtimes	
Historical Resources, or in a local register of historical resources				
as defined in Public Resources Code section 5020.1(k), or?				
b) A resource determined by the lead agency, in its discretion and		\boxtimes		
supported by substantial evidence, to be significant pursuant to				
criteria set forth in subdivision (c) of Public Resources Code				
Section 5024.1. In applying the criteria set forth in subdivision				
(c) of Public Resources Code Section 5024.1, the lead agency				
shall consider the significance of the resource to a California				
Native American tribe?				

Overview:

On September 23, 2016, in compliance with PRC § 21080.3.1 and the CDFW Tribal Communication and Consultation Policy, the Department provided official notification of the Hart Ranch Flow Enhancement Project to those Tribal contacts that are federally recognized tribes in California and/or have requested CEQA notification, within the 6 counties in and around the Project area. Official notification was made to Elk Valley Rancheria, Resighini Rancheria, Yurok Tribe of California, Tolowa Dee-ni Nation – Smith River Rancheria of California, Blue Lake Rancheria, Hoopa Valley Tribe, Bear River Band of Rohnerville Rancheria, Wiyot Tribe, Big Lagoon Rancheria, Cher-Ae Heights Indian Community of Trinidad Rancheria, Cedarville Rancheria of N. Paiute Indians, Fort Bidwell Indian Community of Paiute, Pit River Tribes of California, Redding Rancheria, Quartz Valley Indian Community, Karuk Tribe, and Middletown Rancheria. Formal consultation was not requested by Tribal contacts with the exception of Middletown Rancheria if human habitation is found, as identified in their letter dated October 5, 2016.

Upon completion of the Cultural Resources Survey, contact was made by phone calls on December 22, 2016, and January 3, 2017, and an email on January 5, 2017, to Middletown Rancheria to discuss steps forward. On January 13, 2017, after reviewing the Cultural Resources Survey, Middletown Rancheria responded they did not have any additional comments or interest in the Project.

Discussion of Checklist Answers:

- a) The cultural resources survey for the Project did not identify any historical resources which are listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources. See Section 5, Cultural Resources, of this Initial Study for further discussion. This impact is considered to be *less than significant*.
- b) As identified in Section 5, Cultural Resources, of this Initial Study, no cultural resources of significance have been identified within the Project area. Mitigation MM 5.1 through MM 5.3 included in that section identify actions to be taken, should resources be found during construction activities, as cultural surveys were limited to surface surveys. Therefore, the Project impact is considered to be less than significant with mitigation incorporated.

Conclusions Related to Tribal Cultural Resources:

Project impacts to tribal cultural resources will be short-term in nature and will be isolated to the immediate access points to the Project location, and will be limited to the time of construction. Impacts to traffic and circulation as a result of the proposed Project will be *less than significant*.

4 ENVIRONMENTAL CHECKLIST

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
18. UTILITIES AND SERVICE SYSTEMS . Would the project:				
a) Exceed wastewater treatment requirements of the applicable				
Regional Water Quality Control Board?				
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental	_		Ш	
effects?				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's				
existing commitments? f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				
g) Comply with federal, state and local statutes and regulations related to solid waste?				

Overview:

Potable water within the Project area is supplied by private groundwater wells. Agricultural irrigation water is supplied by a combination of surface water, primarily diverted from the Little Shasta River and area springs, and groundwater wells. No municipal water service is located within the Project area. Water usage varies depending upon the crops being irrigated, and the livestock demands. The Project will result in reduction of the total amount of water diverted from the Little Shasta River for irrigation purposes due to increased irrigation and stockwater efficiencies gained by replacing ditches with buried pipe. The Project will result in modification to an existing water rights through a California Water Code Section 1707 petition process which will result in long-term instream dedication of up to 1.5 cfs and potential permissive dedication of their remaining water right by the Hart Ranch while maintaining viable agricultural lands.

The Project area is served by private septic systems. There are no public wastewater treatment facilities within the Project area. Storm drainage in the Project area is primarily comprised of roadside ditches and overland flow to area waterways including the Little Shasta River and its tributaries. There is no developed storm drain management infrastructure within the Project area with the exception of roadside ditches and culverts.

The County of Siskiyou owns and operates a transfer site for solid waste southeast of the City of Yreka off Oberlin Road. This transfer station serves much of the County, and the station is open to County residents to drop off solid waste. Any solid waste generated as a part of this Project would go to the Oberlin Road Transfer Station. The Oberlin Road Transfer Station accepts solid waste including household waste, construction waste, (concrete, wood, metal), white goods (appliances, including refrigerators), yard waste, and recyclable materials. Fees are charged on a volume and weight basis, with the exception of white goods which are charged on an individual basis. The Oberlin Road Transfer Station is estimated to have capacity to serve the county for 30 years.

Discussion of Checklist Answers:

- a) The proposed Project will have no impact on wastewater treatment. *No impact*.
- b) The Project will have *no impact* on water or wastewater facilities.
- c) The Project will have no impact on stormwater drainage facilities. *No impact*.
- d) The Project will result in a net decrease in the amount of water diverted from the Little Shasta River for irrigation and stockwater, therefore decreasing the demand on water supplies. There will be no net increase in water supply and existing entitlements and resources are adequate to serve the Project. The Project will not result in any expanded entitlements or water rights. Less than significant.
- e) See a) and b) above. No impact.
- f) The Project will generate solid waste as a result of removal of the existing diversion structure which includes the removal of concrete and steel. If solid waste is generated it will be disposed of at the Oberlin Road Transfer Station, which has capacity to serve the County for the next 30 years. The Project will have a *less than significant impact* on landfills and solid waste.
- g) The Project will have *no impact* on solid waste.

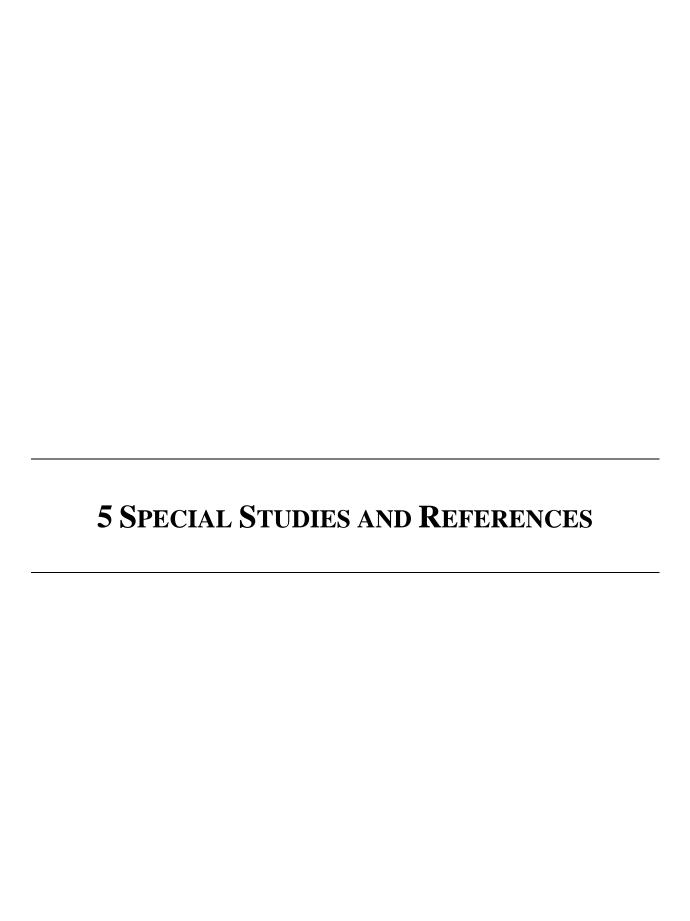
Conclusions Relating to Utilities and Service Systems:

The Project will have a *less than significant impact* on Utilities and Service Systems.

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
19. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animal, or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?				

Discussion of Mandatory Findings of Significance:

- a) The proposed Project may have impacts on biological and cultural resources as discussed in **Section 4.4**, **Biological Resources** and **Section 4.5**, **Cultural Resources**. Mitigation measures **MM 4.1** through **MM 4.8** and **MM 5.1** through **MM 5.3** will reduce impacts to be *less than significant with mitigation incorporated*.
- b) The proposed Project has cumulative impacts associated with construction of the Project which are primarily limited to impacts associated with in-stream work and earth moving activities. The Initial Study and Mitigated Negative Declaration for the proposed Project has evaluated the potential impacts of construction of the Project and has incorporated mitigation that will reduce impacts to a level that is considered to be less than significant. The proposed Project is intended to improve flows, fish passage, and water quality in the Little Shasta River, and improve irrigation management opportunities and efficiencies. The proposed Project includes revegetation in locations where vegetation removal is necessary for Project implementation, with the overall intent of improving habitat within and along the Little Shasta River. The Project's incremental effects, when considered in connection with the effects of past projects, current projects, and the effects of probable future projects, are considered to be minimal in nature and will actually result in an overall improvement to aquatic habitat and water quality in the Little Shasta River watershed in the long term. The volume of agricultural diversions will be reduced below current levels by up to 1.5 cfs, reducing cumulative impacts to listed species and riverine habitats. Therefore, cumulative impacts are minimized and are considered to be *less than significant with mitigation incorporated*.
- c) The proposed Project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly. *No impact.*



5.1 Documents Referenced in Initial Study and/or Incorporated by Reference

The following persons and documents were used to determine the potential for impact from the proposed project. Compliance with federal, state and local laws is assumed in all projects.

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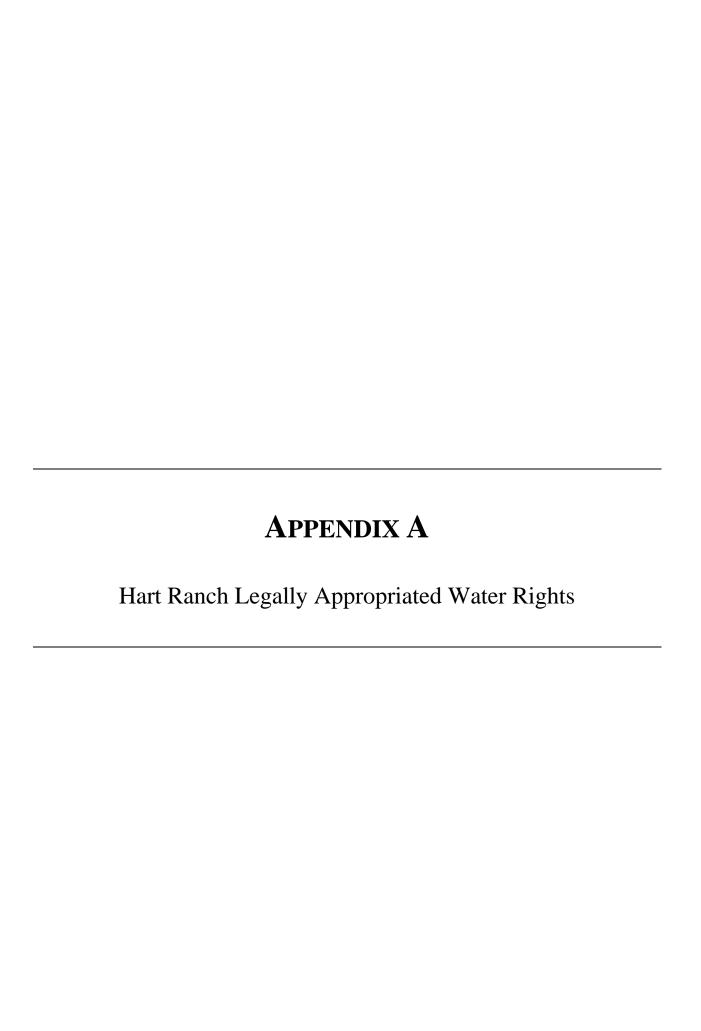
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- Nichols A, et al. 2016. *Little Shasta River Hydrologic and Water Temperature Assessment: April to December 2015.*Report prepared for The Nature Conservancy. April 2016.
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HART RANCH WATER RIGHT: SHASTA RIVER JUDGEMENT AND DECREE, 1932

	WATER RIGHT	PRIMARY OWNER	DIVERSION LOCATION	DIVERSION	DIVERSION AMOUNT	DIVERSION RATE	Decree	Total Summer	Total Winter
DIVERSION #	TYPE	PRIMART OWNER	DIVERSION LOCATION	SEASON	(Acre Feet)	(cfs)	Paragraph	Diversion (cfs)	Diversion (cfs)
471	Appropriative	Rabbit Hill, LLC	Hart-Haight (LSR: RK 18.5)*	3/1-11/1	258	0.529	163	0.55	
471	Appropriative	Blair Hart	Hart-Haight (LSR: RK 18.5)*	3/1-11/1	9	0.021	163	0.55	
471	Appropriative	Rabbit Hill, LLC	Hart-Haight (LSR: RK 18.5)*	11/1-3/1	70	0.144	163		
471	Appropriative	Blair Hart	Hart-Haight (LSR: RK 18.5)*	11/1-3/1	2	0.006	163		0.15
472	Appropriative	Rabbit Hill LLC	Hart-Haight (LSR: RK 18.5)*	3/1-11/1		0.255	88-13	0.255	
472	Appropriative	Rabbit Hill LLC	Hart-Haight (LSR: RK 18.5)*	11/1-3/1		0.027	88-13		0.027
474	Appropriative	Rabbit Hill, LLC	Hart-Haight (LSR: RK 18.5)*	3/1-11/1	4,712	9.659	152		
474	Appropriative	Soda Springs, LLC	Hart-Haight (LSR: RK 18.5)*	3/1-11/1	1940	3.981	152	13.64	
474	Appropriative	Rabbit Hill, LLC	Hart-Haight (LSR: RK 18.5)*	11/1-3/1	492	1.029	152		
474	Appropriative	Soda Springs, LLC	Hart-Haight (LSR: RK 18.5)*	11/1-3/1	207	0.425	152		1.454
478	Appropriative	Rabbit Hill, LLC	Hart-Haight (LSR: RK 18.5)*	3/1-11/1	1,455	2.983	165	2.983	
478	Appropriative	Rabbit Hill, LLC	Hart-Haight (LSR: RK 18.5)*	11/1-3/1	243	0.499	165		0.499
otal Little Shas	ta River Diversion	(RK 18.5)						17.428	2.13
otal Little Shas	ta River Diversion	(RK 18.5)						17.428	2.13
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		,	Martin Spring Evans Spring	3/1-11/1 3/1-11/1	190	0.021 0.388	249 164	-	2.13
461/461/463	Appropriative	Soda Springs, LLC		¥, , , , , ,	190 960			-	2.13
461/461/463 467	Appropriative Appropriative	Soda Springs, LLC Blair Hart	Evans Spring	3/1-11/1		0.388	164	0.021	2.13
461/461/463 467 467	Appropriative Appropriative Appropriative Appropriative	Soda Springs, LLC Blair Hart Rabbit Hill, LLC	Evans Spring Evans Spring Evans Spring	3/1-11/1 3/1-11/1	960	0.388 1.967	164 164	0.021	
461/461/463 467 467 467	Appropriative Appropriative Appropriative	Soda Springs, LLC Blair Hart Rabbit Hill, LLC Blair Hart	Evans Spring Evans Spring	3/1-11/1 3/1-11/1 11/1- 3/1	960 190	0.388 1.967 0.388	164 164 164	0.021	2.13
461/461/463 467 467 467 467	Appropriative Appropriative Appropriative Appropriative	Soda Springs, LLC Blair Hart Rabbit Hill, LLC Blair Hart Rabbit Hill, LLC	Evans Spring Evans Spring Evans Spring	3/1-11/1 3/1-11/1 11/1- 3/1	960 190	0.388 1.967 0.388	164 164 164	0.021	
461/461/463 467 467 467 467	Appropriative Appropriative Appropriative Appropriative Appropriative	Soda Springs, LLC Blair Hart Rabbit Hill, LLC Blair Hart Rabbit Hill, LLC	Evans Spring Evans Spring Evans Spring	3/1-11/1 3/1-11/1 11/1- 3/1	960 190	0.388 1.967 0.388	164 164 164	0.021 2.355	2.355

Notes: * LSR = Little Shasta River, RK = River Kilometer

Source: Shasta River Adjudication No. 7035

APPENDIX B

Hart Ranch Northside Stock Watering Facilities, 75% Design Davids Engineering, Inc. August 2016

HART RANCH

Northside Stock Watering **Facilities**

75% DESIGN NOT FOR CONSTRUCTION OWNER: HART RANCH *CONTACT INFO*

ENGINEER: DAVIDS ENGINEERING, INC TOMMY OSTROWSKI, PE 1772 PICASSO AVENUE, DAVIS, CA SUITE A 530-757-6107 EXT.108

Abbreviations

HORIZONTAL : VERTICAL SLOPE INVERT LENGTH = AGGREGATE BASE ACRE LATERAL ACRE-FEET LONG CRESTED WEIR ANGLE POINT MAXIMUM **APPROVED** MINIMUM **MISCELLANEOUS APPROXIMATE BEGINNING OF CURVE** BENCH MARK NORTH (COORDINATE) CUBIC FEET PER SECOND NOT TO BE DISTURBED **CONSTRUCTION JOINT** ON CENTER **CENTERLINE** OUTSIDE DIAMETER CLASS OVERHEAD CONTROLLED LOW-STRENGTH MATERIAL POINT OF COMPOUND CURVATURE **CLEARANCE** POINT OF REVERSE CURVATURE CONCRETE POUNDS PER SQUARE INCH CORRUGATED STEEL PIPE POLYVINYL CHLORIDE REVISION **CENTERED** REINFORCED CONCRETE PIPE DEGREE **DIAMETER SCHEDULE** DIA **DRAWING** STRAIGHT EMBEDMENT **EXISTING ELECTRIC LINE** STAINLESS STEEL EAST (COORDINATE) THICKNESS TO BE REMOVED EACH TBR END OF CURVE TOB TOP OF BANK EACH FACE TOP OF CONCRETE STRUCTURE **EXISTING GROUND** TOL TOP OF LINING TOP OF WEIR WALL **ELECTRIC** TOW ELEV **ELEVATION TYPICAL** UNLESS NOTED OTHERWISE EW EACH WAY FURNISH AND INSTALL UNITED STATES BUREAU OF RECLAMATION WATER SURFACE ELEVATION FINISHED GRADE FLOWLINE

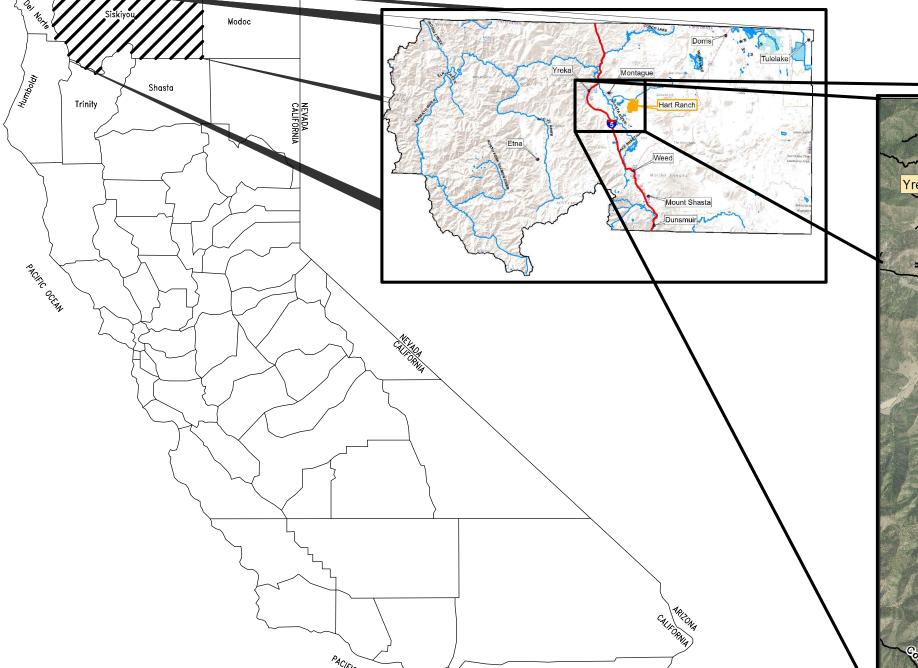
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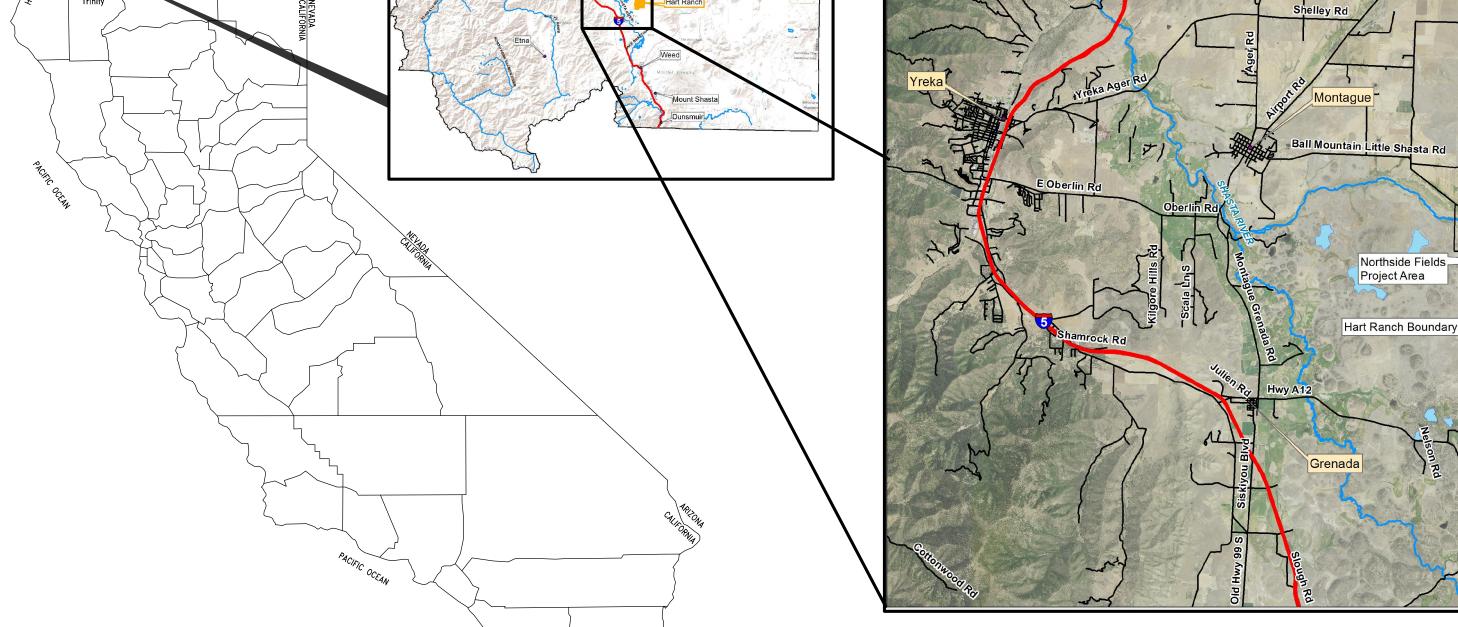
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Vicinity Map

Scale: Not to Scale

Location Map

Scale: Not to Scale

Sheet Index:

Details 4

Title Sheet General Notes and Standard Details Project Overview Supply Pipeline - Plan and Profile 1 Supply Pipeline - Plan and Profile 2 Supply Pipeline — Plan and Profile 3 Supply Pipeline - Plan and Profile 4 Supply Pipeline - Plan and Profile 5 Elevated Tank Access Road Site Plan Elevated Tank Site Plan and Details Pumping Plant Site Plan and Details Harry Cash Road Crossing Site Plan 13 Wetland Supply Site Plan and Details
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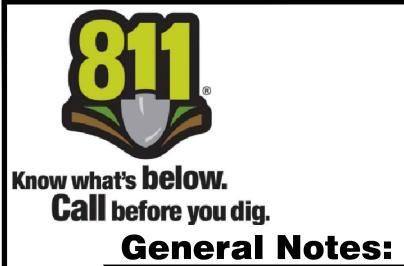


http://www.davidsengineering.com 1772 Picasso Avenue, Suite A Davis, CA 95616 Phone: (530) 757-6107 Fax: (530) 757-6118

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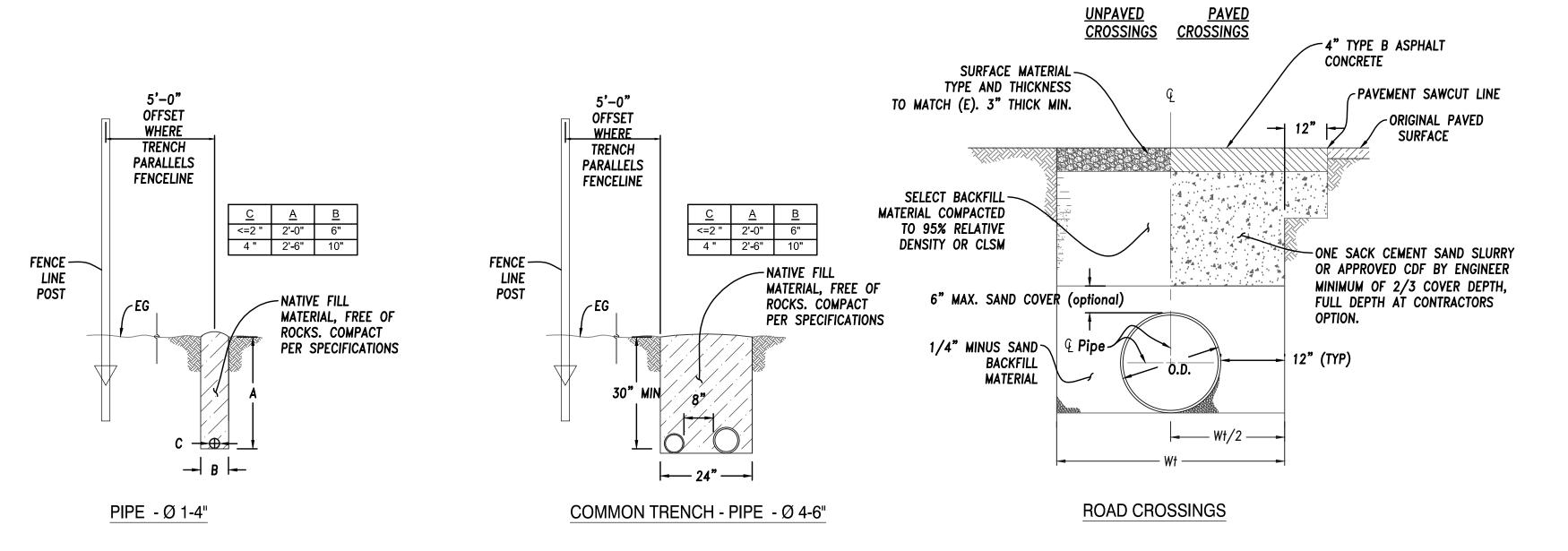
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1 of 17 1088.04 Varies Aug. 19 2016



Gonorai

To Be Added



TYPICAL TRENCH DETAILS

General Structure Notes

To be added

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Project Eng:
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GENERAL

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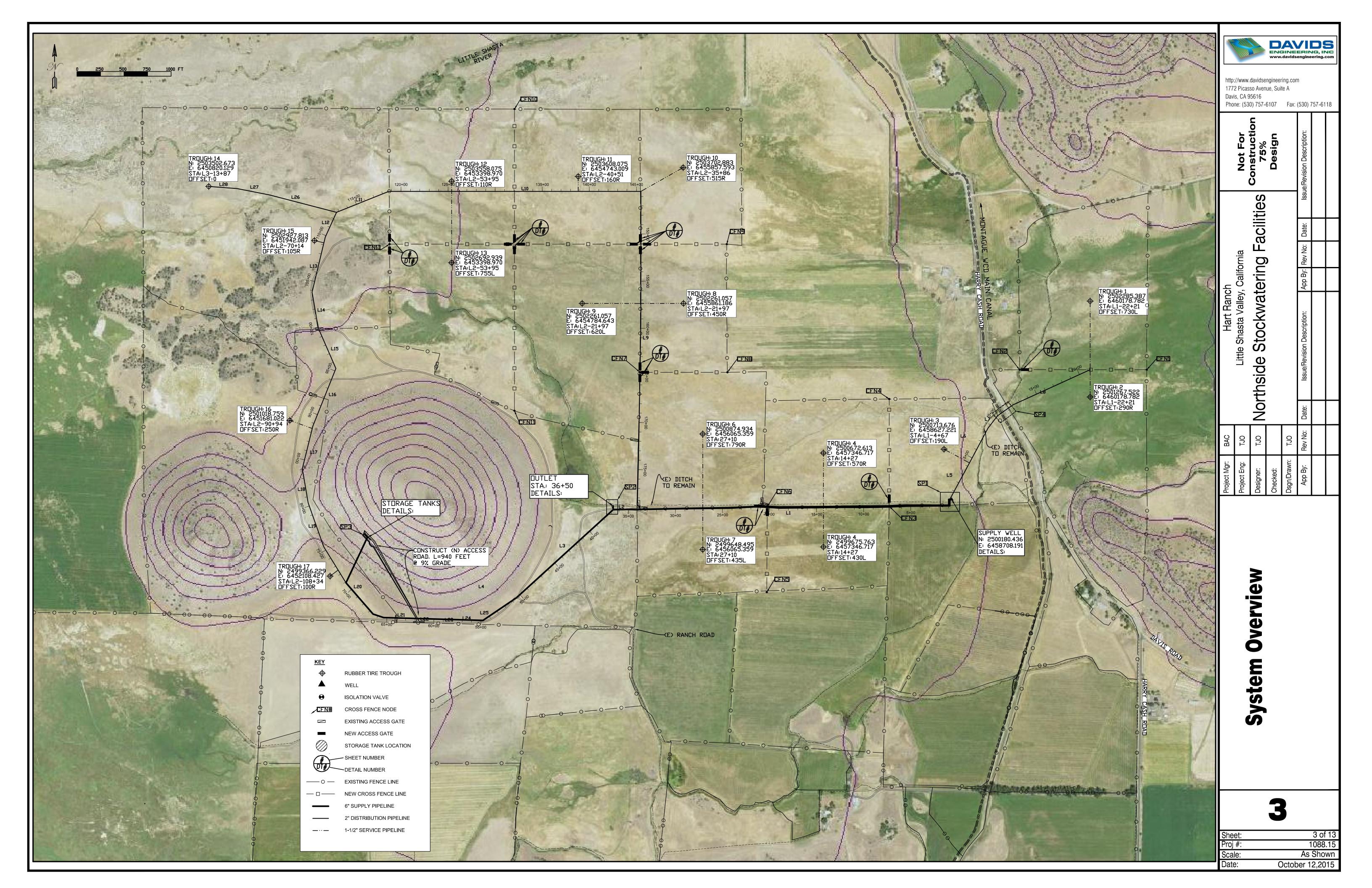
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ENGINEERING, INC
www.davidsengineering.com

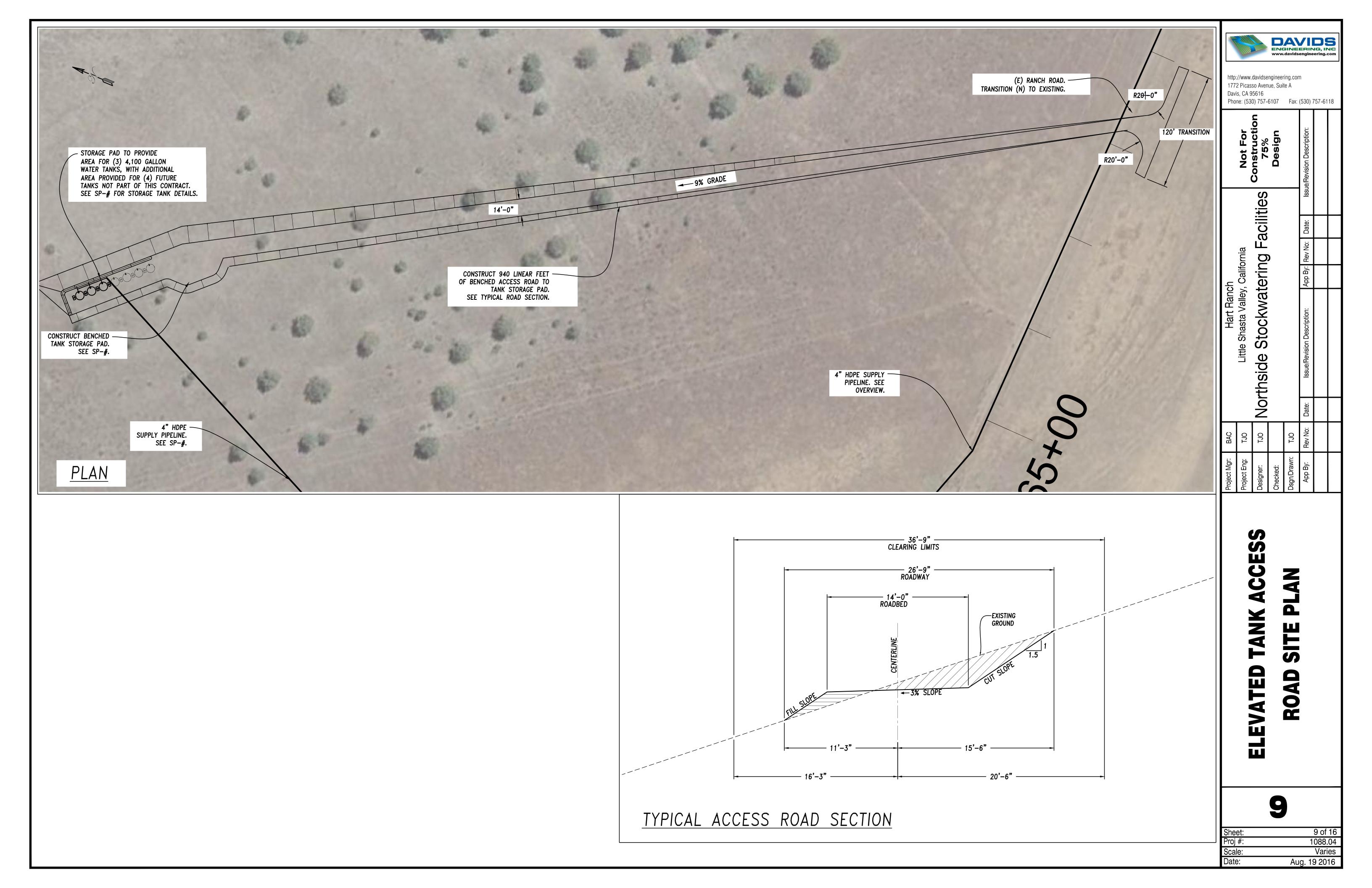
http://www.davidsengineering.com 1772 Picasso Avenue, Suite A

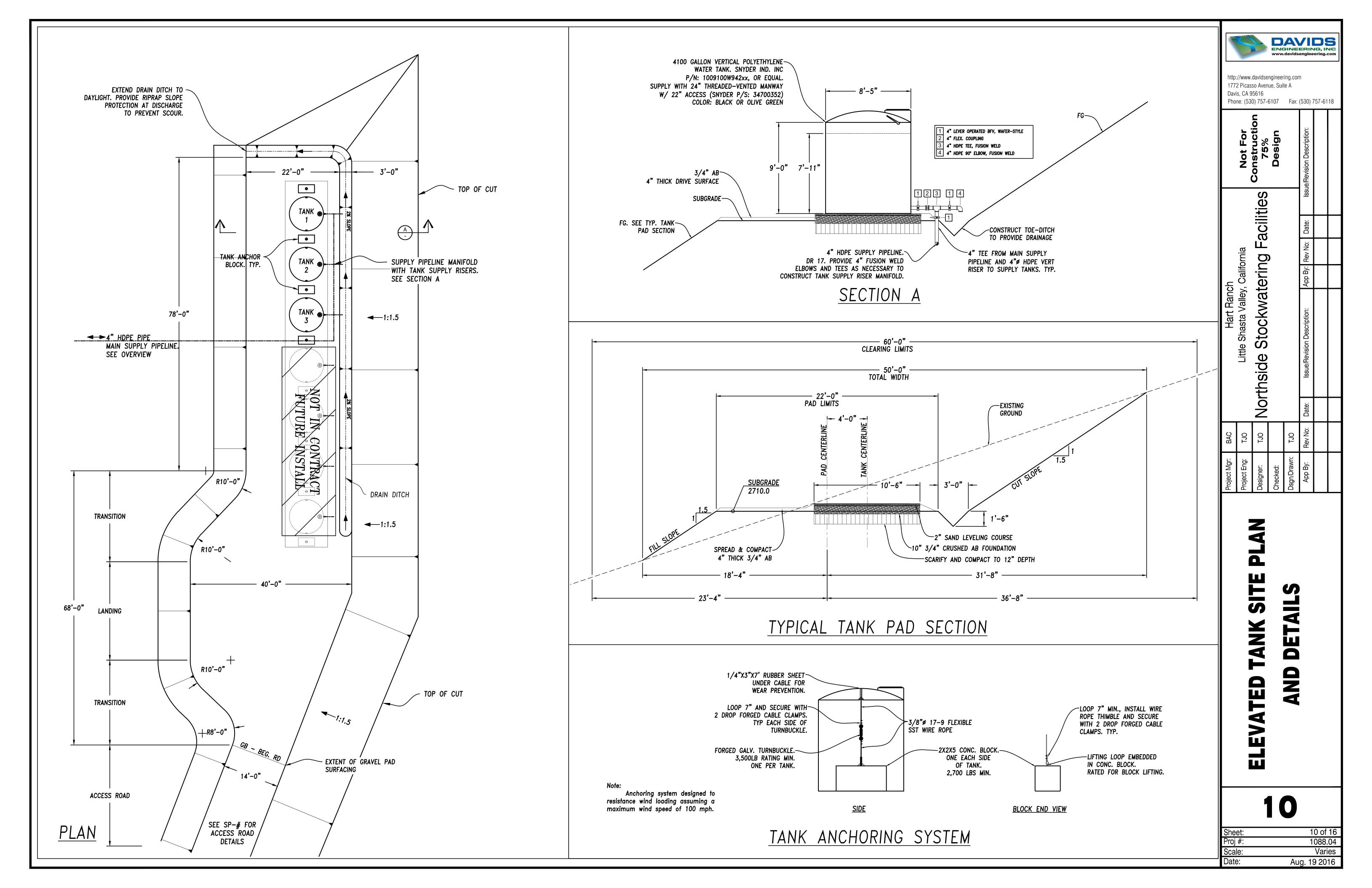
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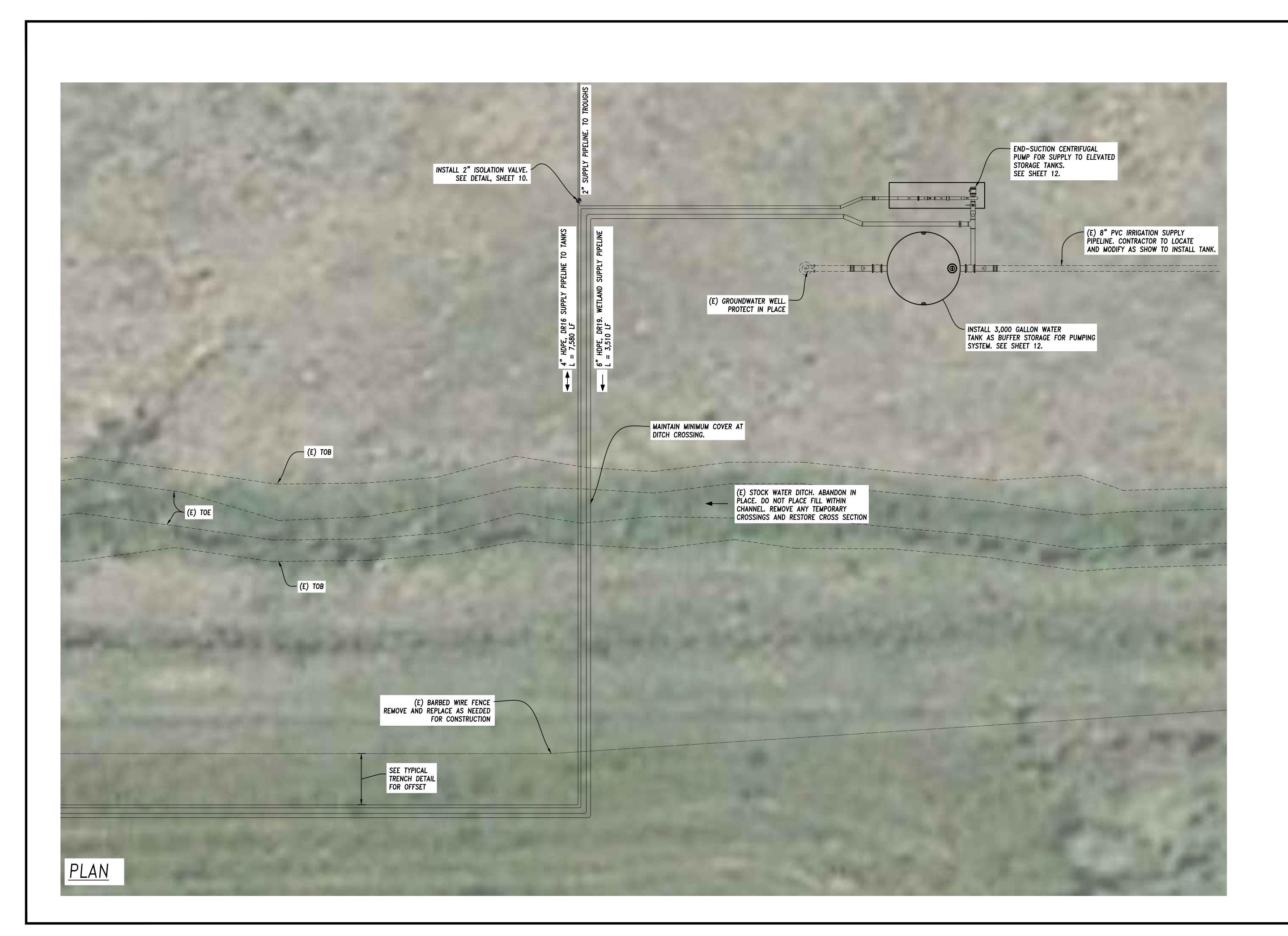
Phone: (530) 757-6107 Fax: (530) 757-6118

Davis, CA 95616











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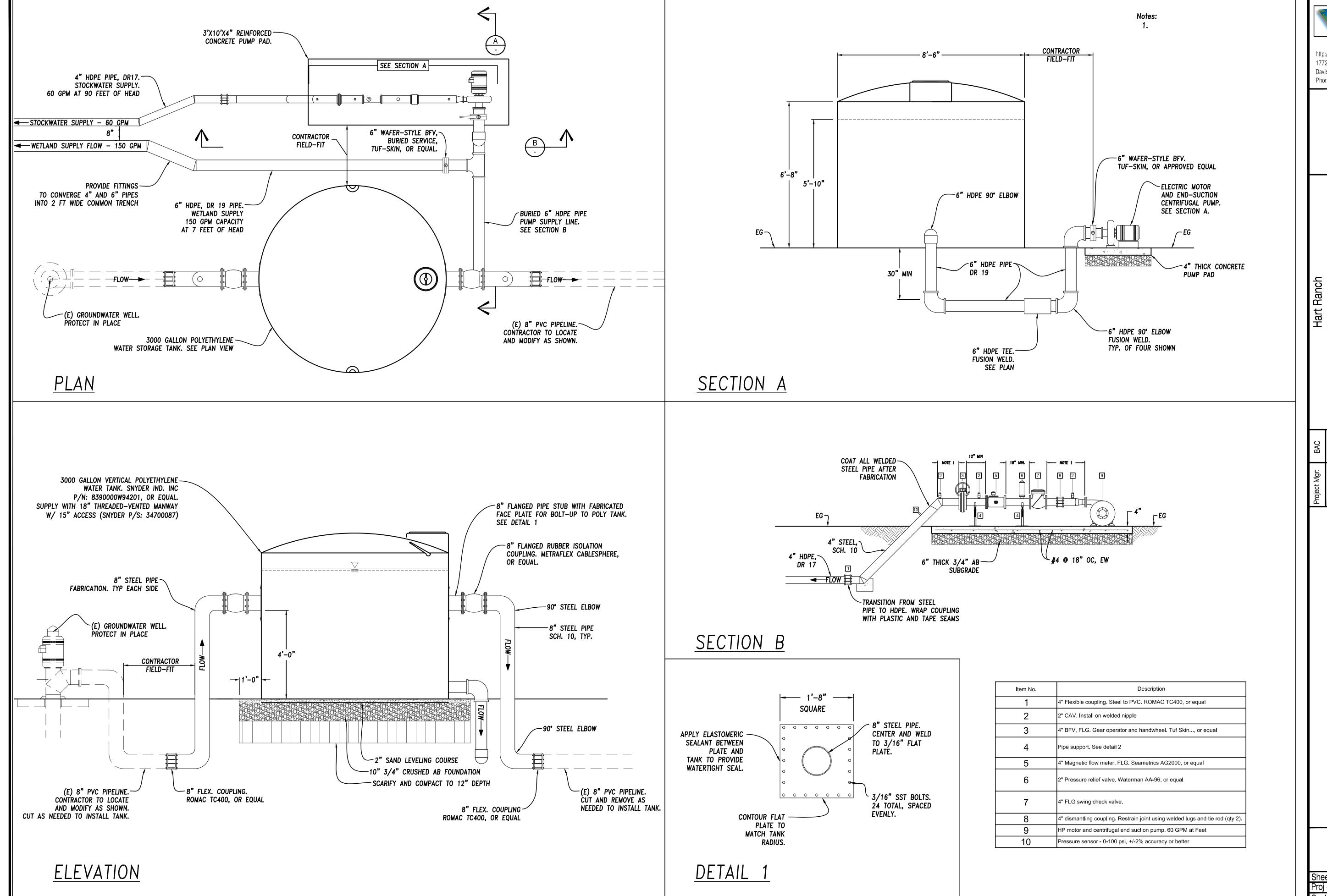
Davis, CA 95616	
Phone: (530) 757-6107	Fax: (530) 757-6

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PLAN SITE STATION PUMP

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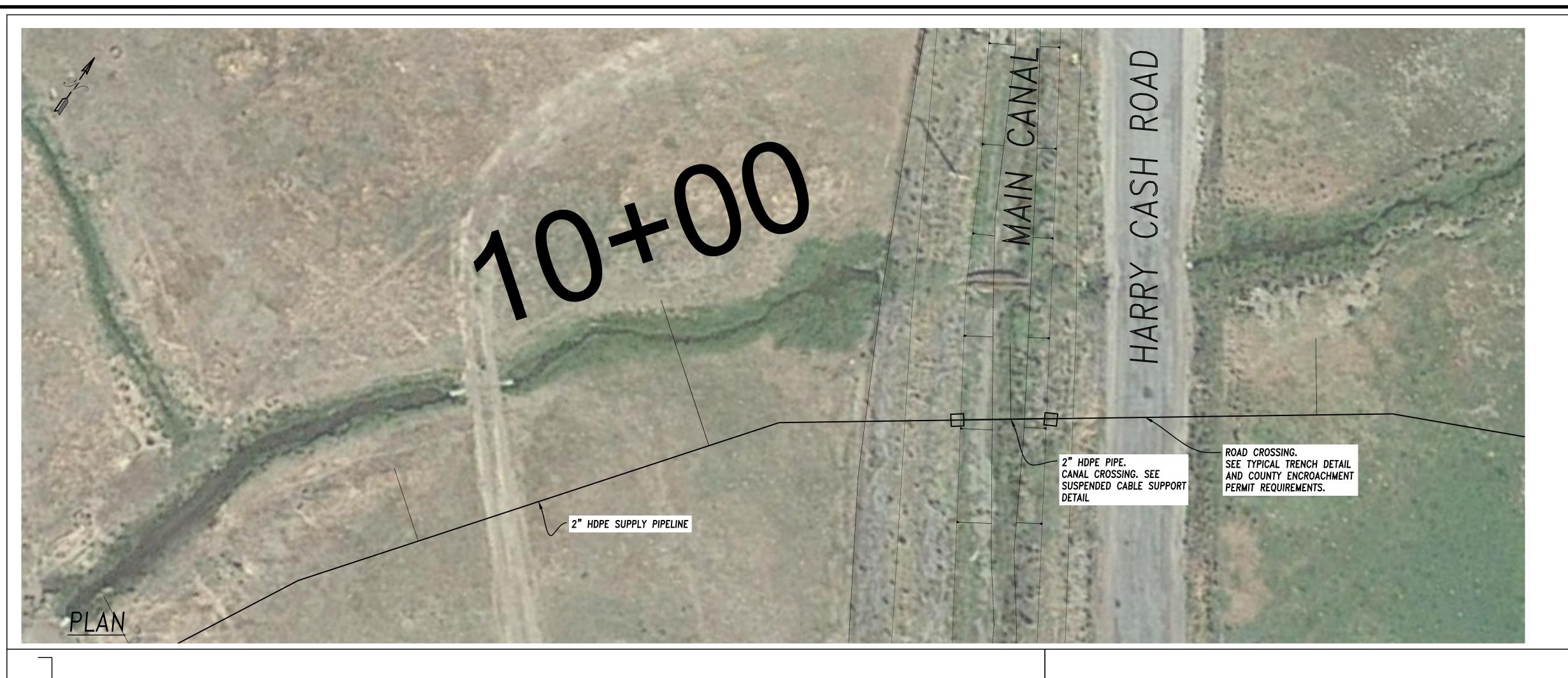


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PUMP STATION DETAILS

12

Sheet:	12 of 16
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Date:	Aug. 19 2016



- HARRY CASH ROAD

110

E) BARBED WIRE FENCE.
REMOVE AND REPLACE
AS NEEDED FOR CONSTRUCTION.

VERTICAL SHIFT AS
NEEDED TO POSITION
PIPE ABOVE HWM AS
SHOWN IN DETAIL 1

FEET

ELEVATION,

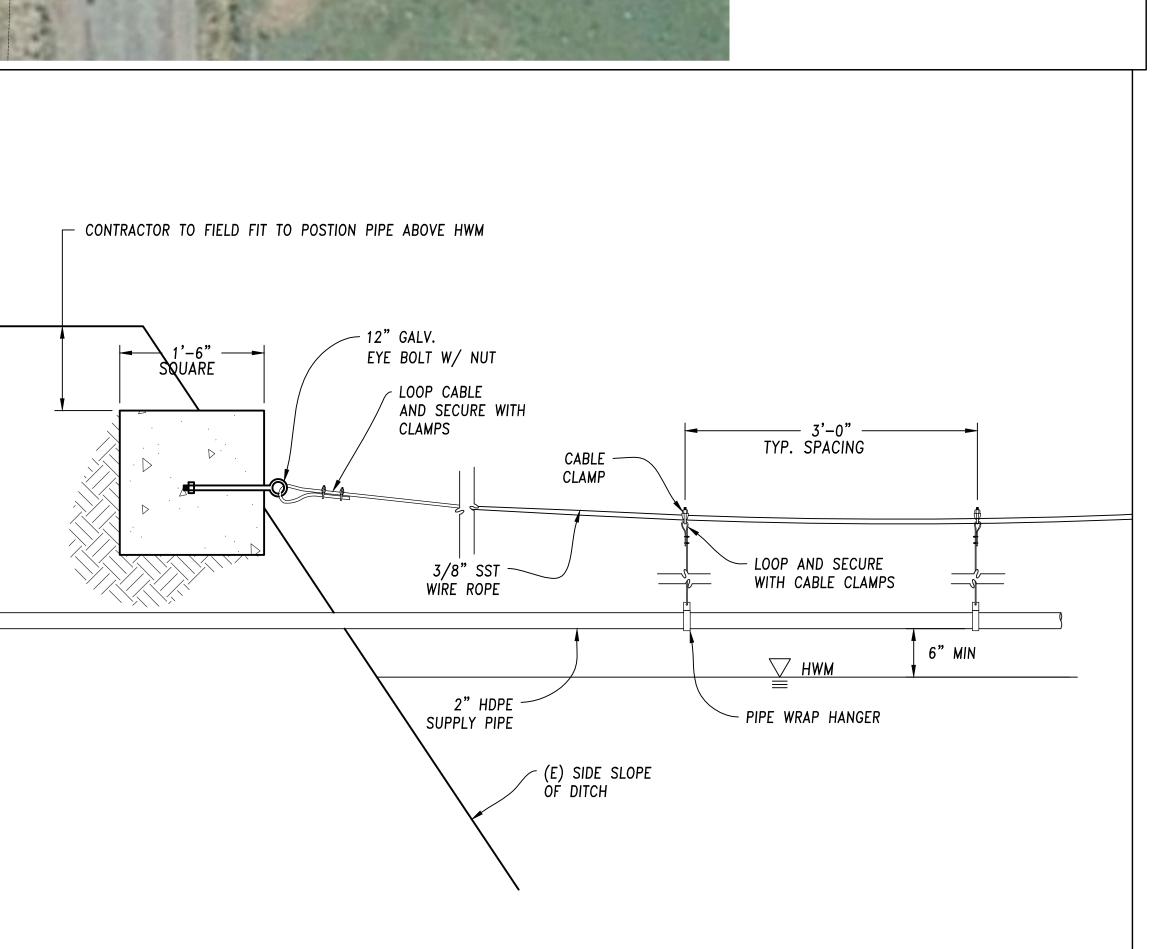
PROFILE

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- SEE DETAIL 1

(E) TOE ~

DISTANCE, FEET



PROFILE - SUSPENDED CABLE PIPE SUPPORT

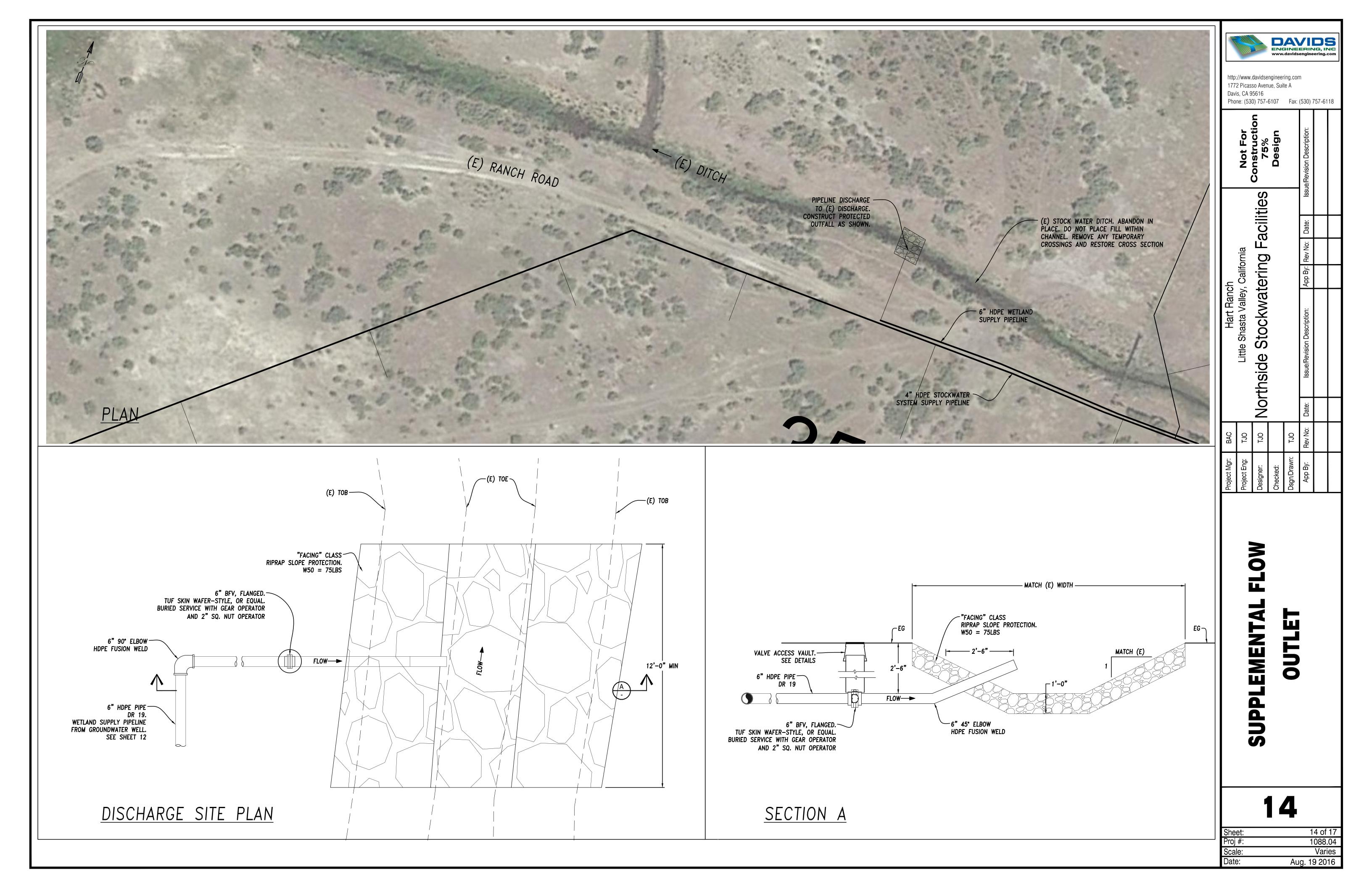
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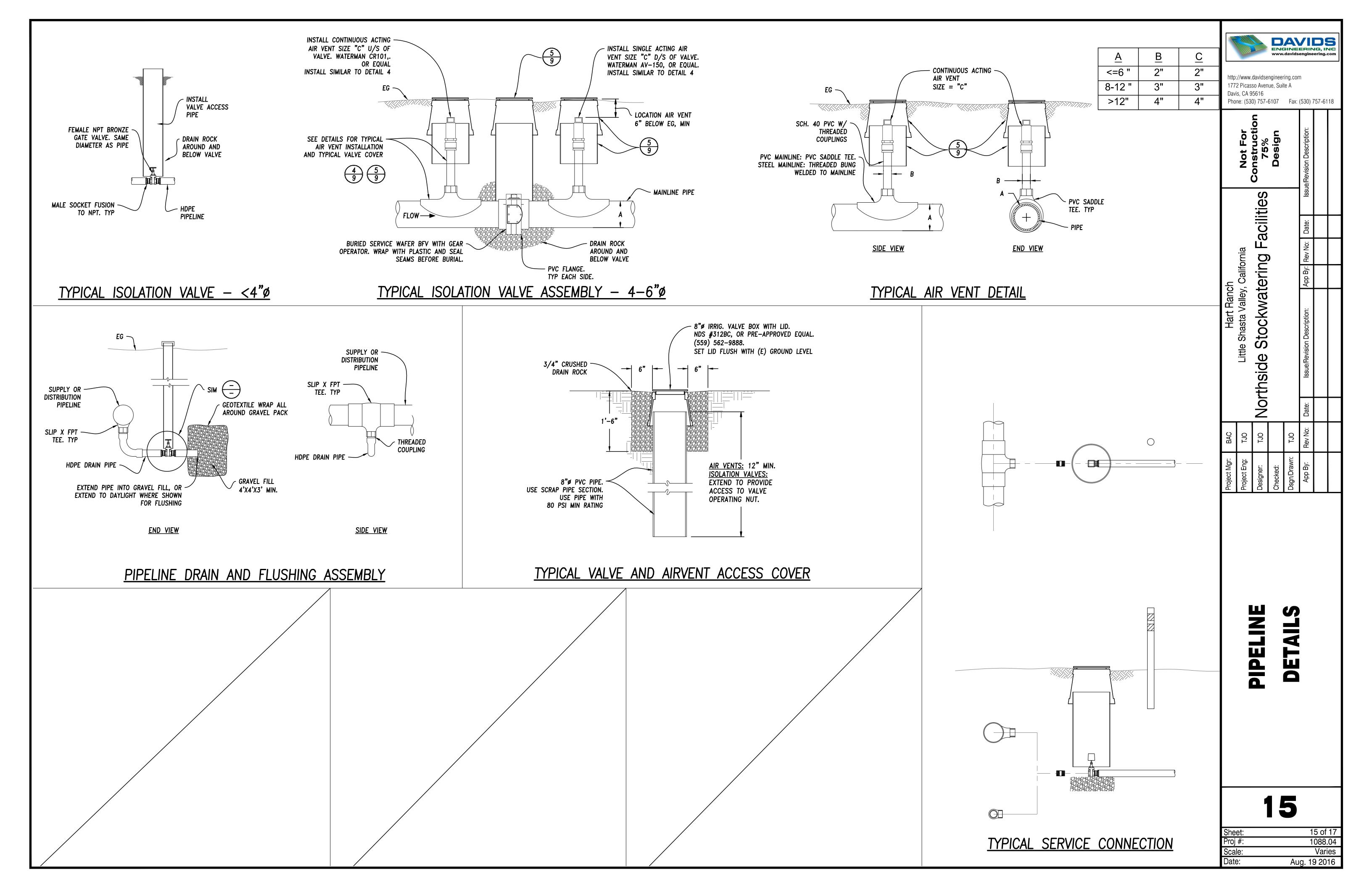
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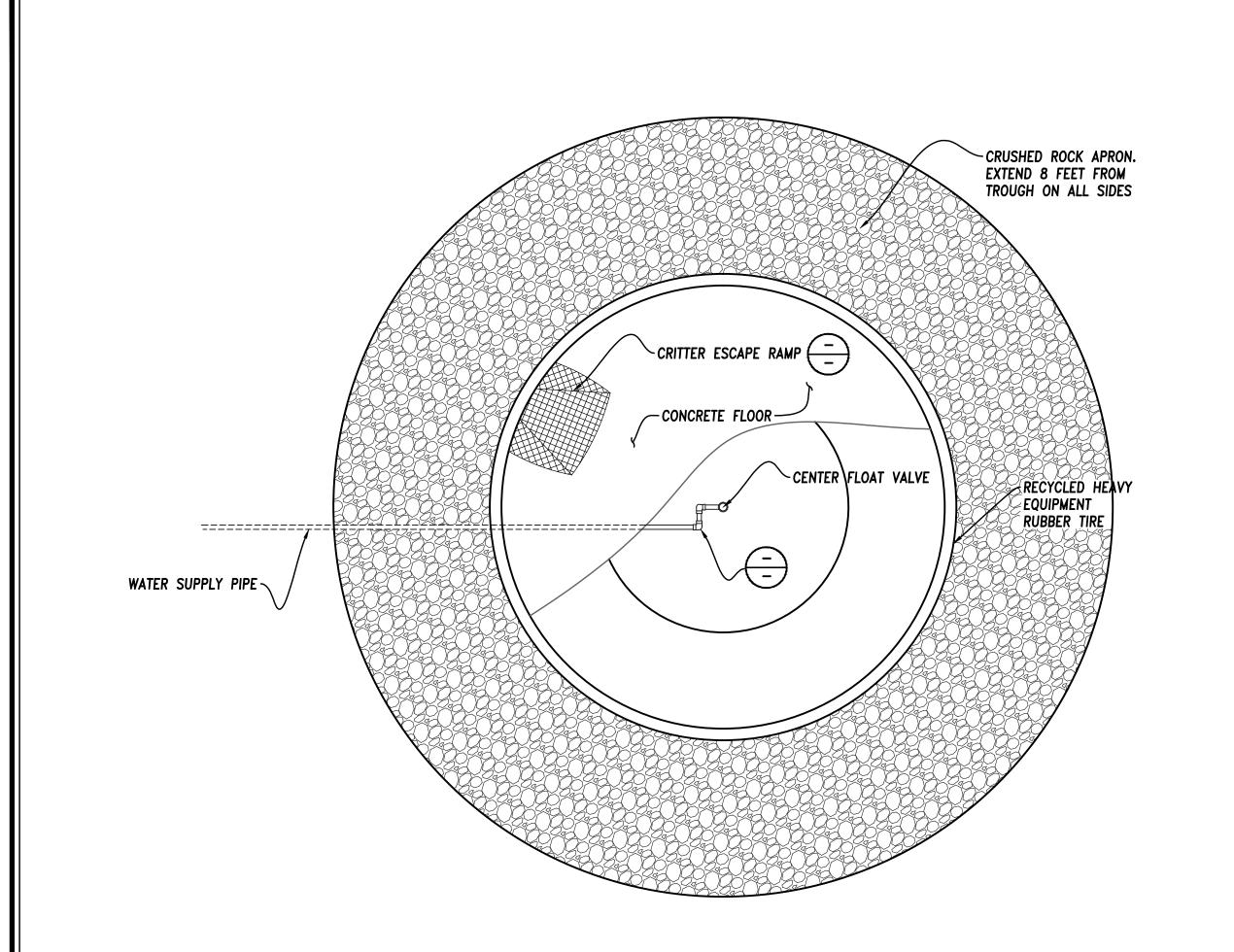
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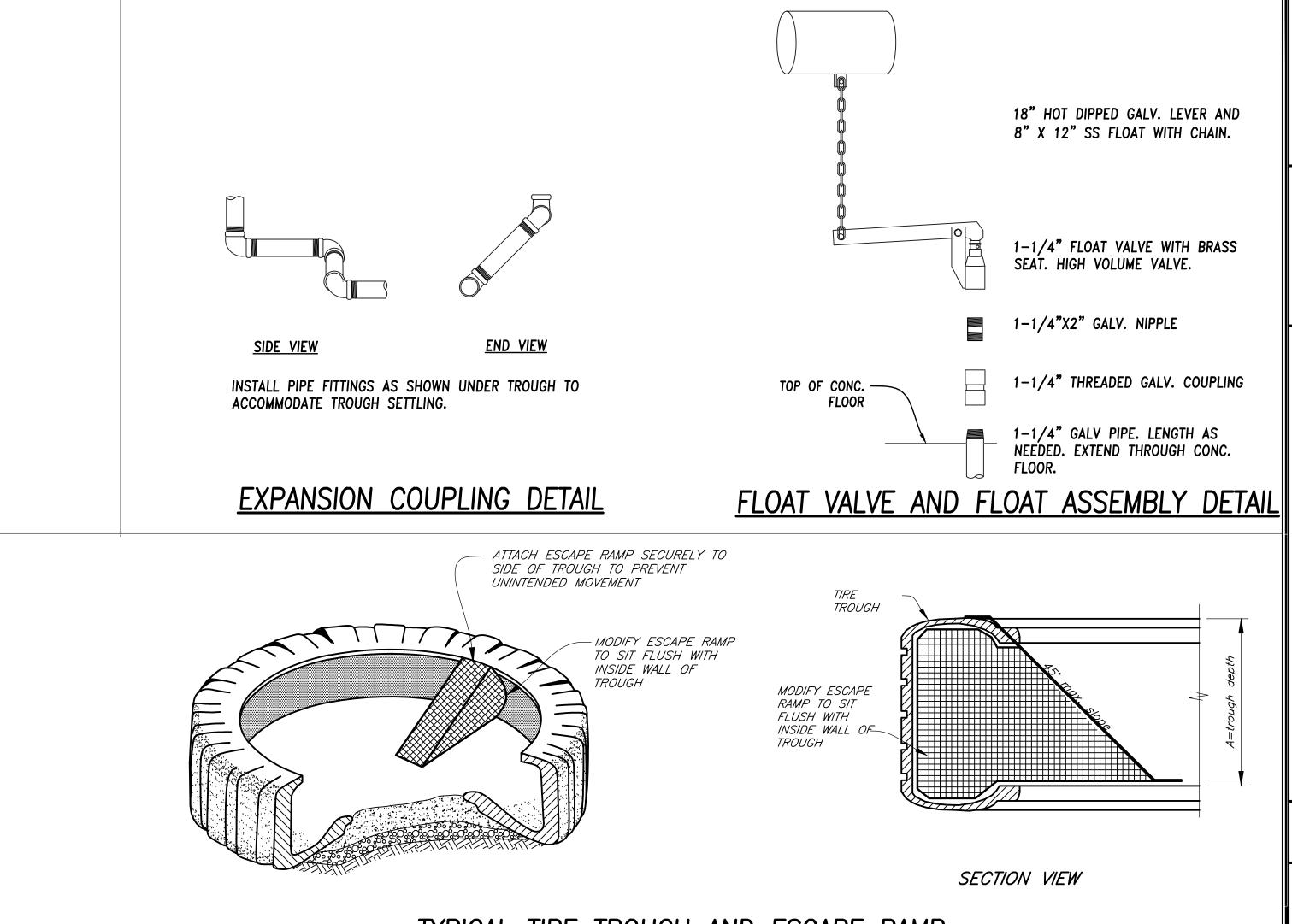
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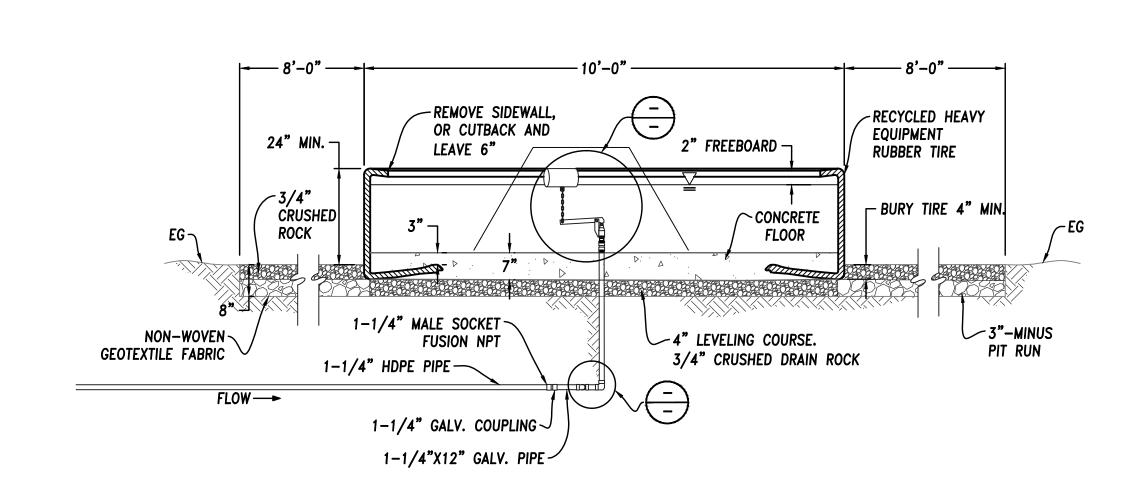






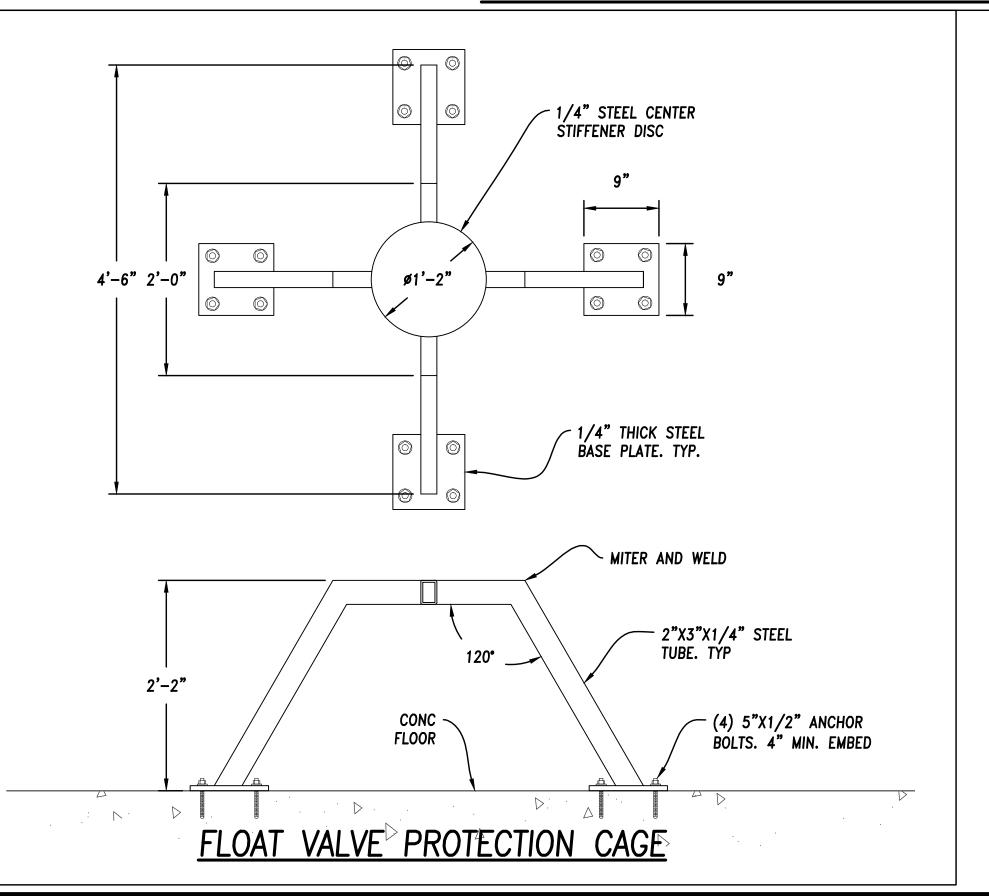


TYPICAL TIRE TROUGH AND ESCAPE RAMP



TYPICAL TIRE TROUGH - PLAN VIEW

TYPICAL TIRE TROUGH - SECTION A



REQUIREMENTS

- 1. Escape ramps shall extend to bottom of trough and be flush with inside wall of the trough to provide safe and easy egress at low water levels.
- 2. Escape ramps shall be sloped no steeper than 45 degrees, to allow animals to climb out without slipping back into the water.
- 3. Escape ramps shall be built of tractive, long lasting materials, such as painted or coated metal grating, or high—strength plastic composites. Expanded metal escape ramps shall be 11 or 13 gauge with 1/2 inch mesh and shall be finished with a rust—inhibiting paint or coating.
- 4. Escape ramps shall be securely attached to the trough rim. Recommend attaching ramp with metal—tapping screw and washer, or a bracket with a bolt and wing nut for easy removal during trough maintenance.

 Secured attachment shall keep ramp from being moved loose by livestock, animals or freezing water.

RUBBER TIRE TROUGH DETAILS

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Facilities

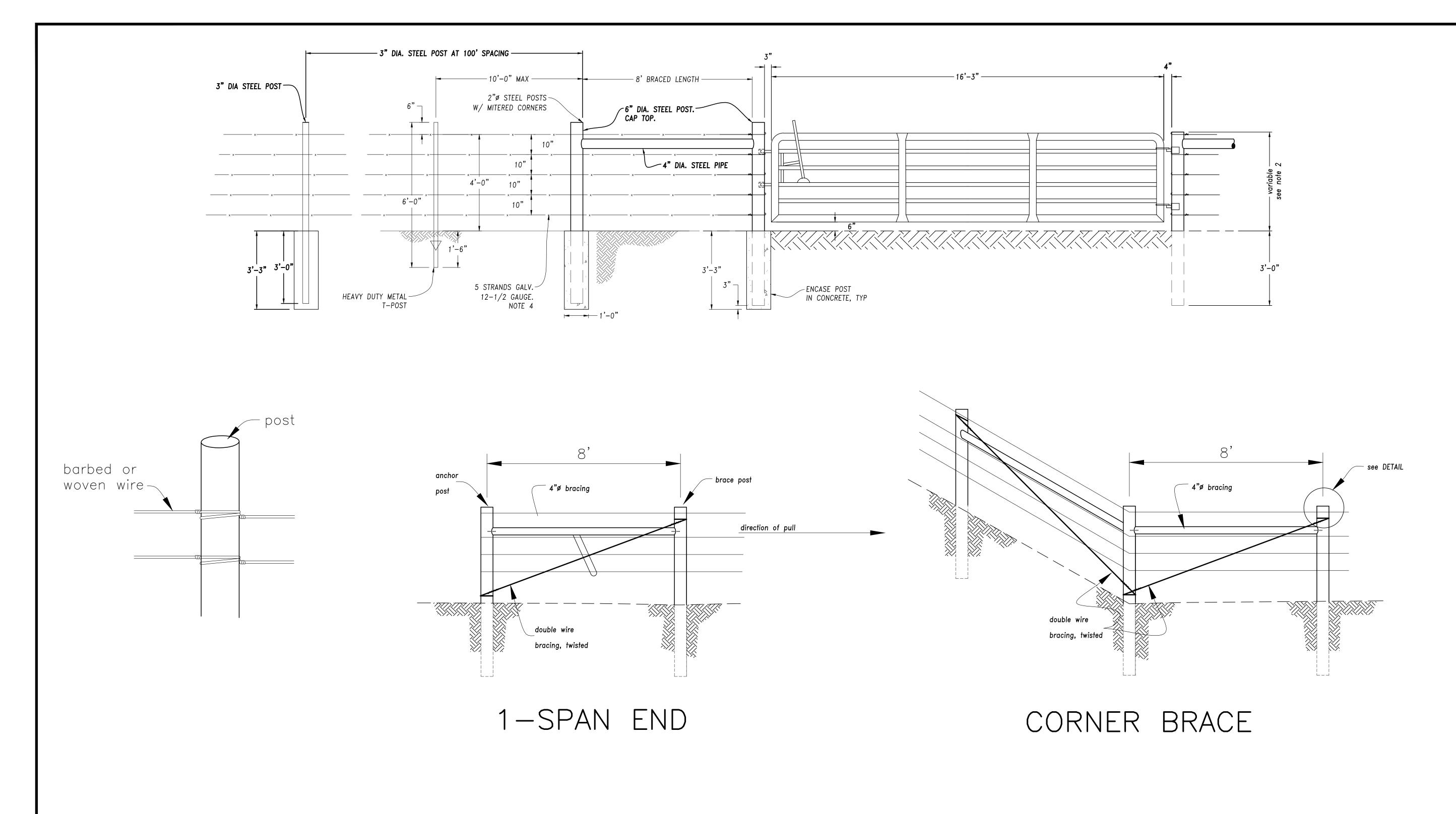
Stockwatering

Northside

Davis, CA 95616

16

Sheet:	16 of 17
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Not For Construction 75%

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Little Shasta Valley, California
de Stockwatering Facilities

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 17 of 17

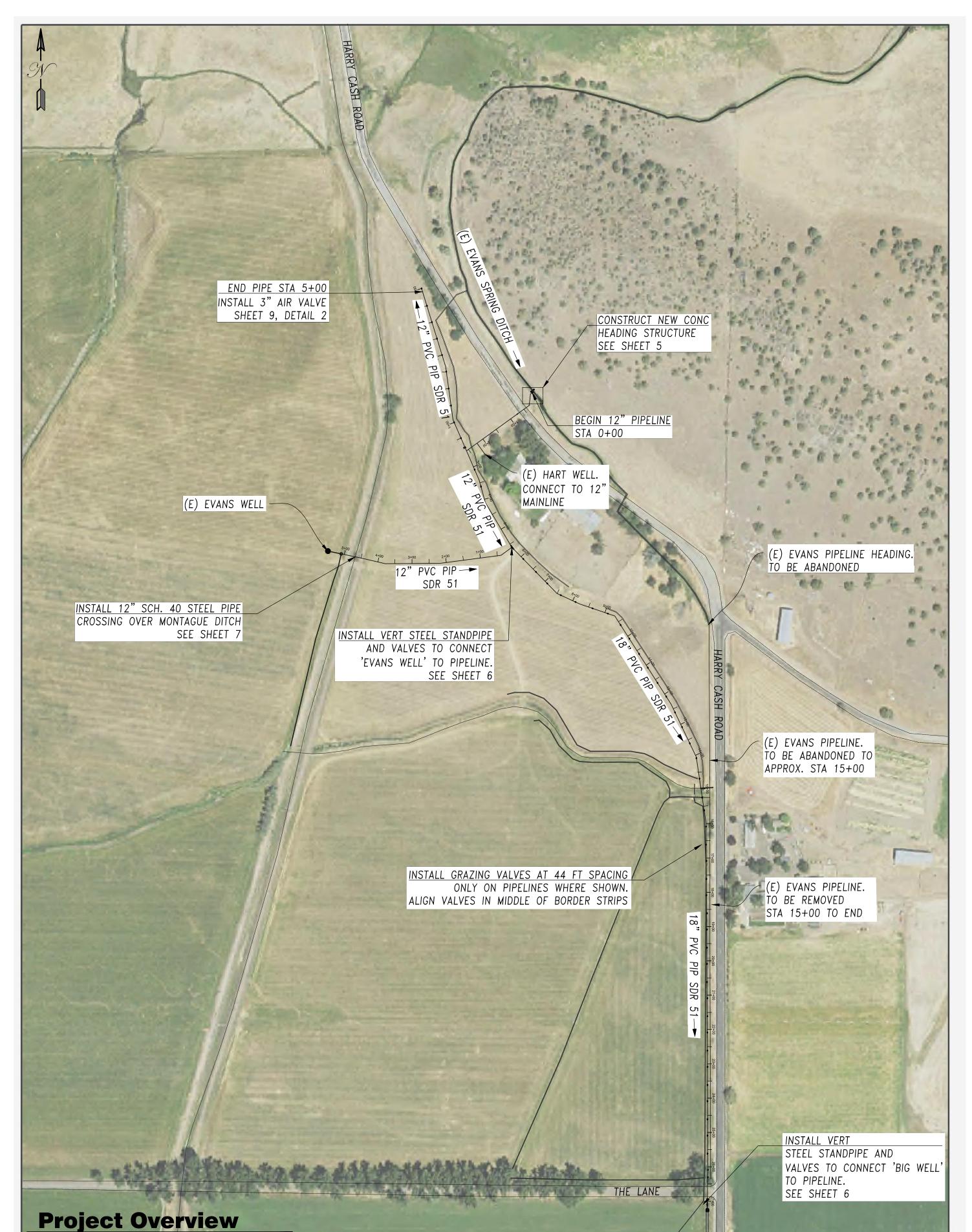
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 Aug. 19 2016

APPENDIX C

Hart Ranch Main Pipeline Replacement 100% Design Davids Engineering, Inc. July 2016





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Sheet Index:

Project Overview Plan and Profile - Mainline 1

Plan and Profile — Mainline 2

Plan and Profile - Lateral 1 & Evans Well Connection Pipeline Heading Structure Sections and Details
Stand Pipe Sections and Details

Montague Ditch Crossing Details Irrigation Division Site Plan General Details 1

10 General Details 2

Notes

- 1. All construction shall be in accordance with these drawings and the specifications bearing the project name "Hart Ranch Evans Spring Pipeline Replacement Project".
- 2. Landowner shall be responsible for obtaining any needed permits, easements, and/or right-of-ways.
- 3. Contractor will be responsible for locating and protecting all utilities. Special safety precautions to be taken when working in the vicinity of gas, oil, and electrical lines (buried and overhead).
- 4. Cal-OSHA safety requirements shall be in effect during all construction.
- 5. All lines and grades shown on these drawings are approximate. The proposed structure location shall be staked by the contractor and verified by the Engineer prior to construction.
- 6. Contact the Owner and the Engineer at least 7 days prior to construction. Owner:

Hart Ranch Contact: Blair Hart

Cell: 530-598-1051 Engineer:

Davids Engineering Contact: Tommy Ostrowski, PE Office: 530-757-6107 ext. 108 Cell: 805-305-5335 Email: tommy@davidsengineering.com

Legend

BREAK LINE

CENTERLINE

SECTION ARROW

DETAIL/SECTION NUMBER FOUND ON SHEET

EARTH

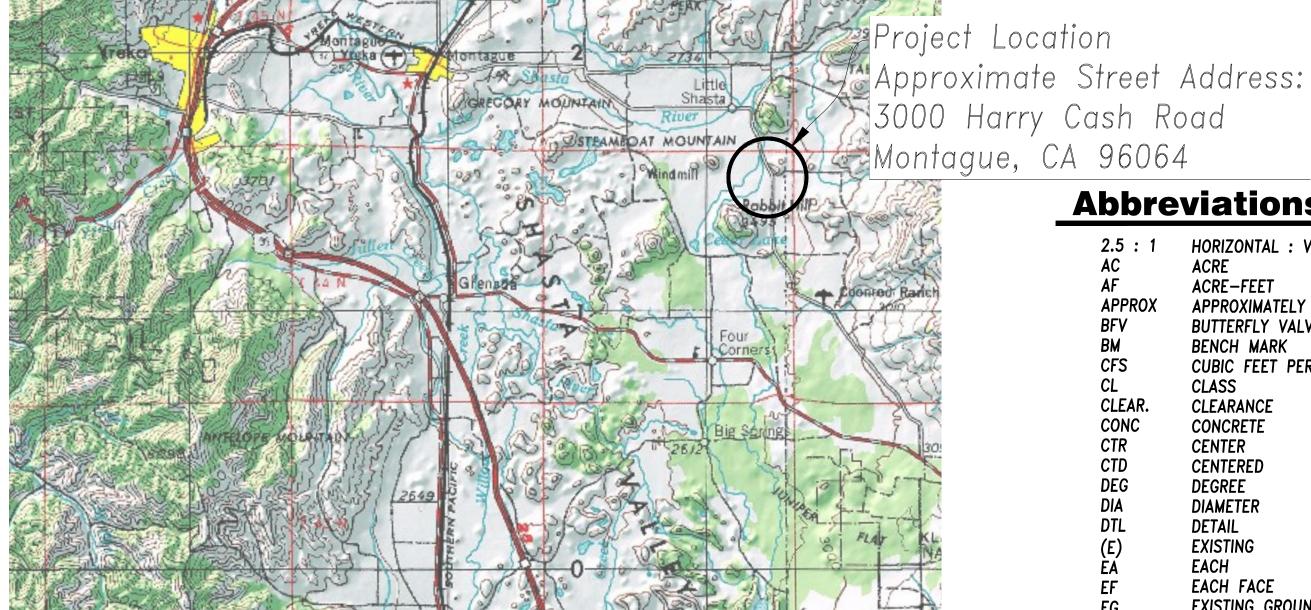
CONCRETE

RIPRAP/AB

SAND

PIPELINE SUMMARY

DIAMETER	TYPE	LENGTH,FT
6"	PVC PIP	65
	SDR 51	
12"	PVC PIP	1562
	SDR 51	
18"	PVC PIP	2150
	SDR 51	



Abbreviations

DDIE	viation5	
2.5 : 1 AC AF APPROX BFV BM CFS CL CLEAR. CONC CTR DEG DIA DTL (E) EA EF EG	HORIZONTAL: VERTICAL SLOPE ACRE ACRE—FEET APPROXIMATELY BUTTERFLY VALVE BENCH MARK CUBIC FEET PER SECOND CLASS CLEARANCE CONCRETE CENTER CENTER CENTERED DEGREE DIAMETER DETAIL EXISTING EACH EACH FACE EXISTING GROUND	INV L= MAX MIN (N) O.C. O.D. PSI PVC REV SCH SHT SDR SIM STA SST
ELEV EW FG FL FT GALV HWM HWL	ELEVATION EACH WAY FINISHED GRADE FLOWLINE FEET GALVANIZED HIGH WATER MARK HIGH WATER LEVEL	t TBR TOB TOC TOW TYP UNO VERT WSE

INV	INVERT
L=	LENGTH =
MAX	MAXIMUM
MIN	MINIMUM
(N)	NEW
NTBD	NOT TO BE DISTURBED
0.C.	ON CENTER
0.D.	OUTSIDE DIAMETER
PIP	PLASTIC IRRIGATION PIPE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
REV	REVISION
S=	SLOPE =
SCH	SCHEDULE
SHT	SHEET
SDR	STANDARD DIMENSION RATIO
SIM	SIMILAR
STA	STATION
SST	STAINLESS STEEL
t	THICKNESS
TRR	TO BE REMOVED

IO BE KEMOVED TOP OF BANK TOP OF CONCRETE STRUCTURE TOP OF WEIR WALL **TYPICAL** UNLESS NOTED OTHERWISE VERTICAL

WATER SURFACE ELEVATION

Location Map

1 of 10 Sheet: Proj #: As Shown Dec 31, 2016

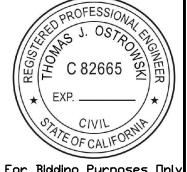
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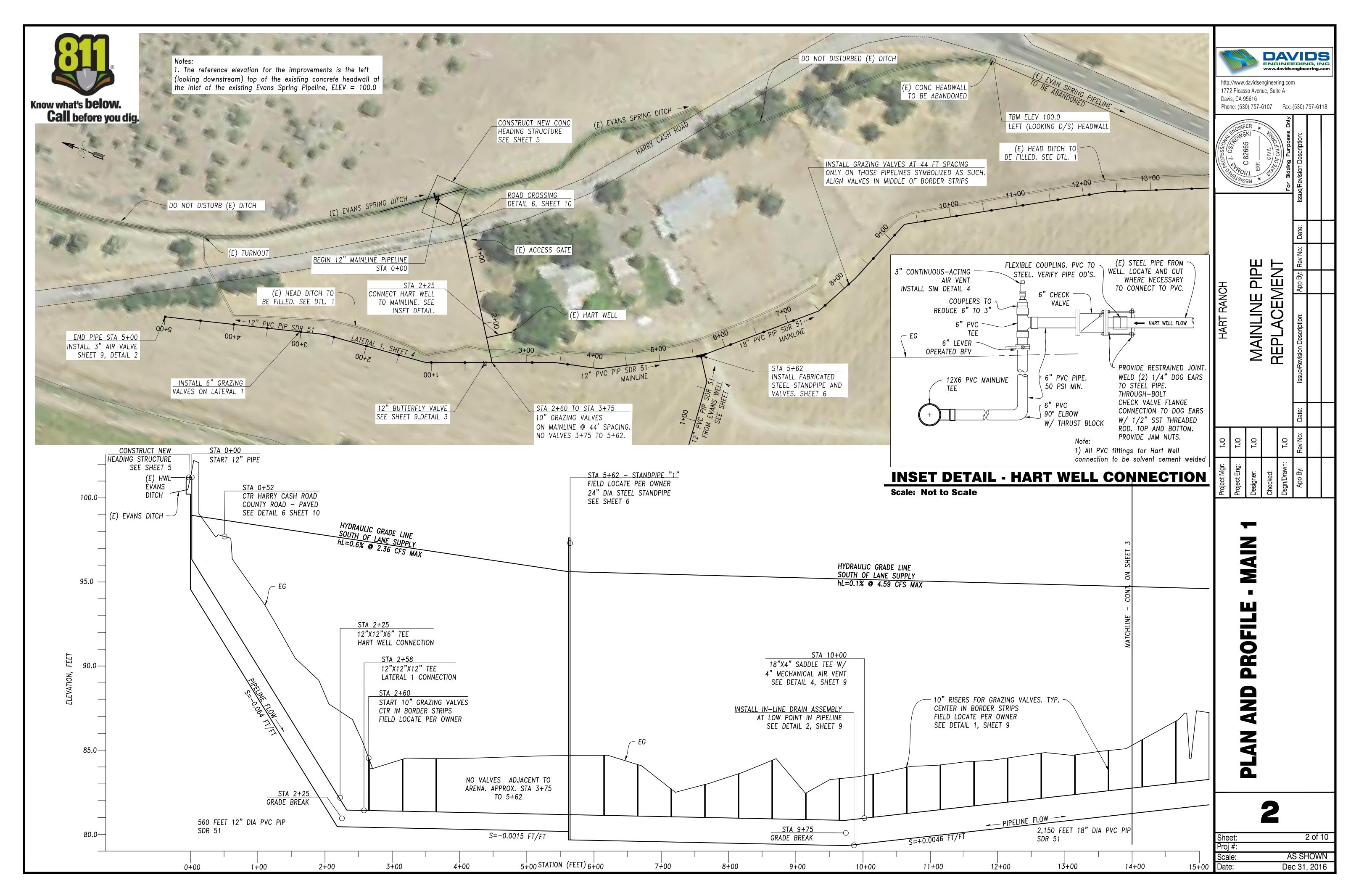
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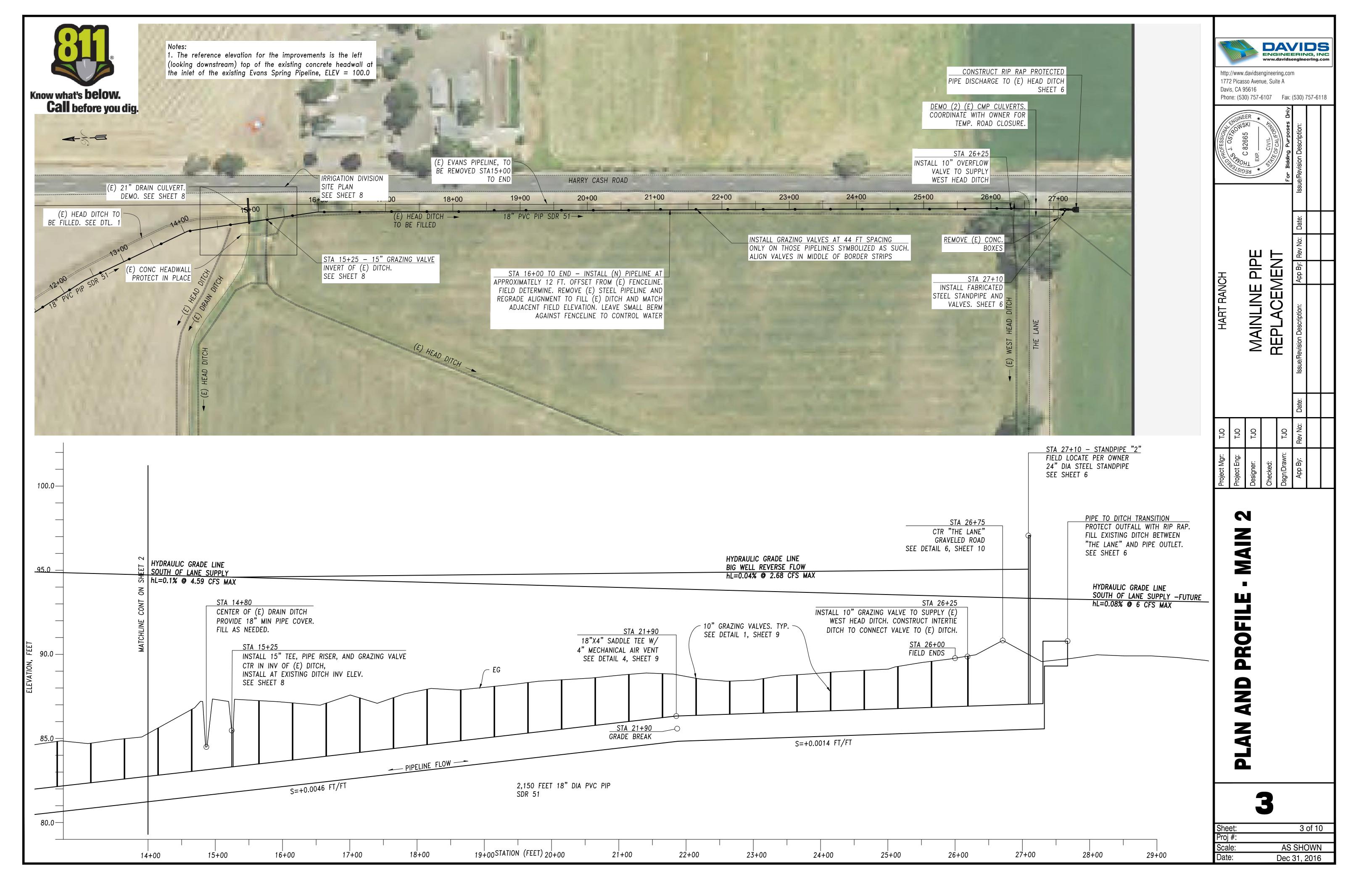


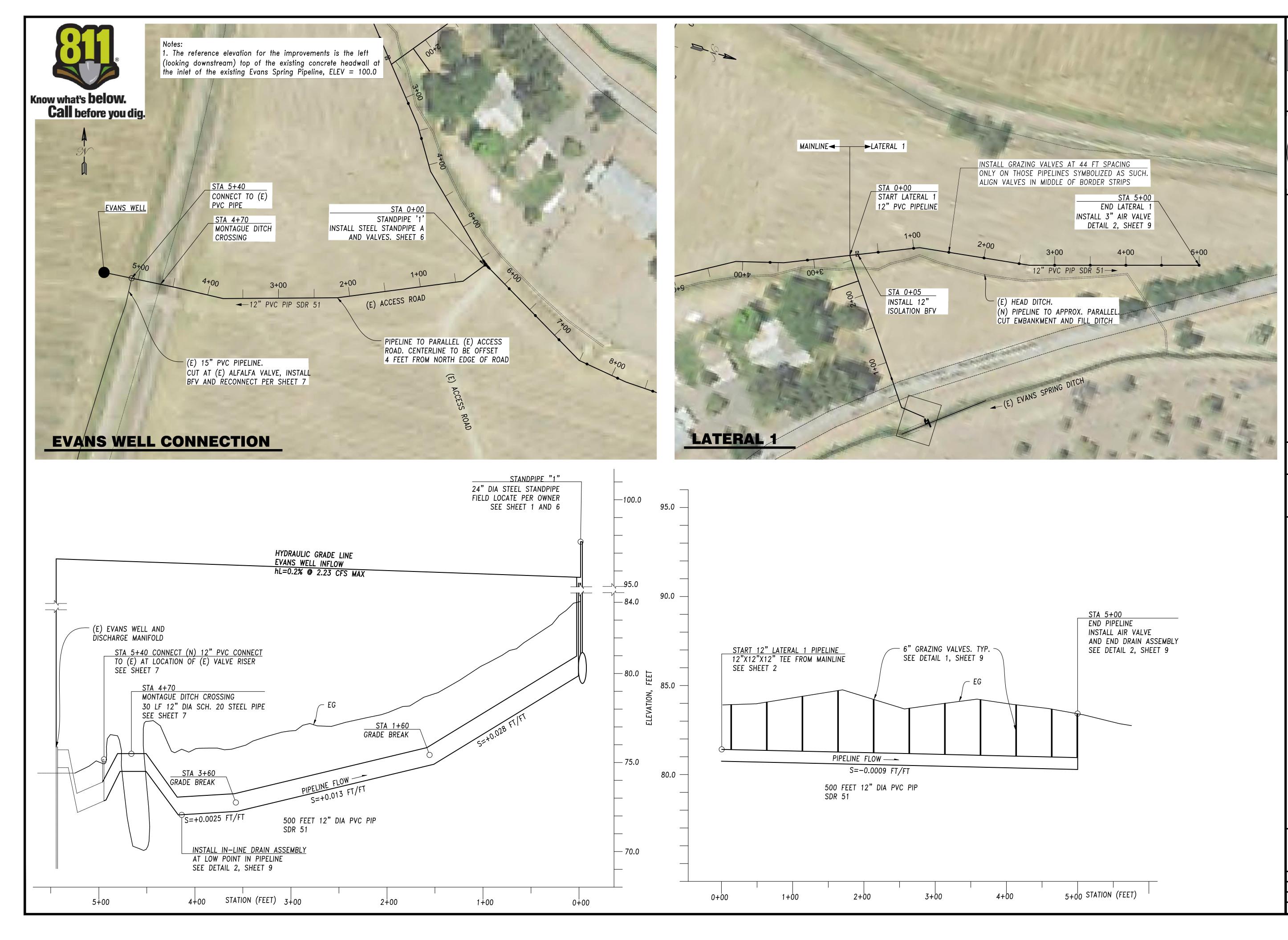
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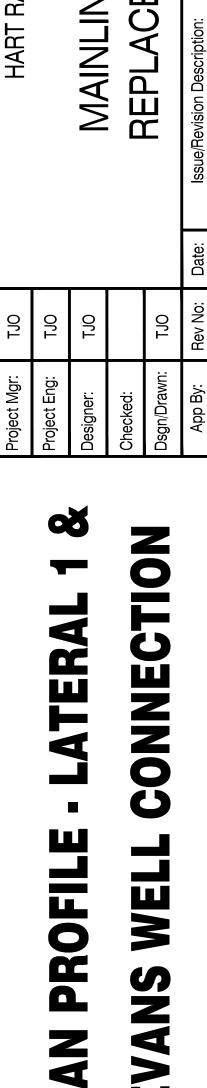
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Davis, CA 95616 Phone: (530) 757-6107 Fax: (530) 757-6118









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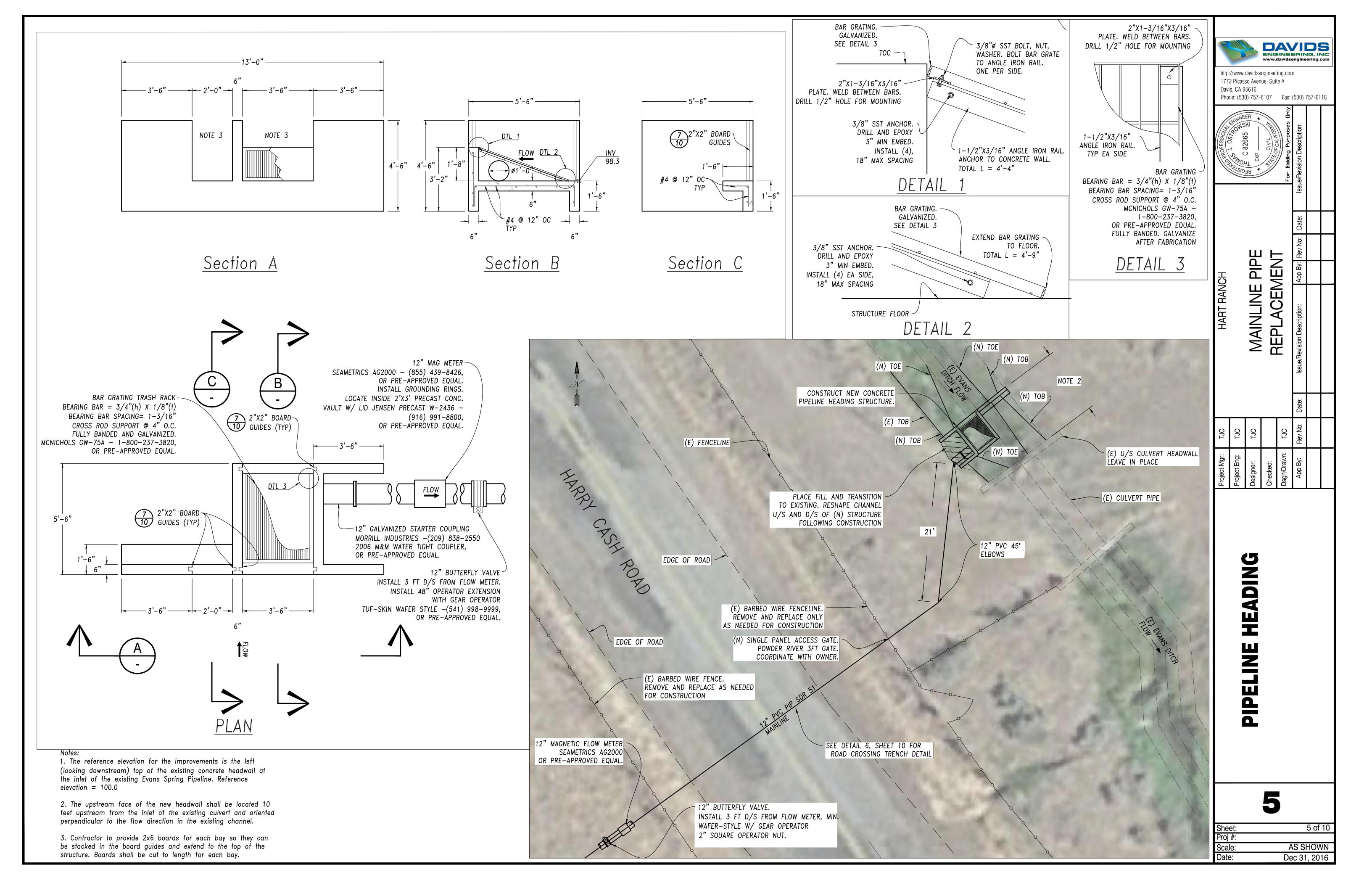
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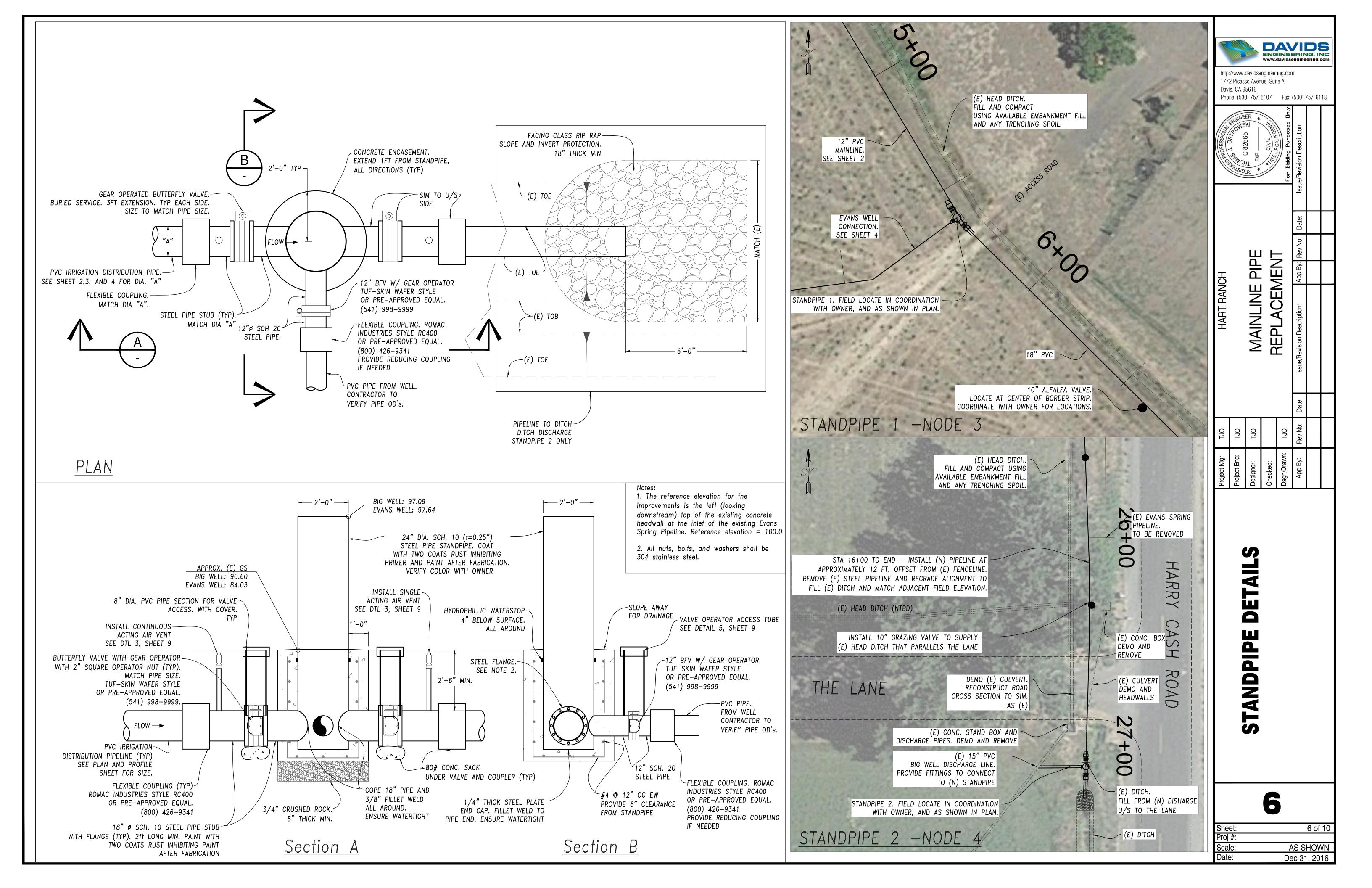
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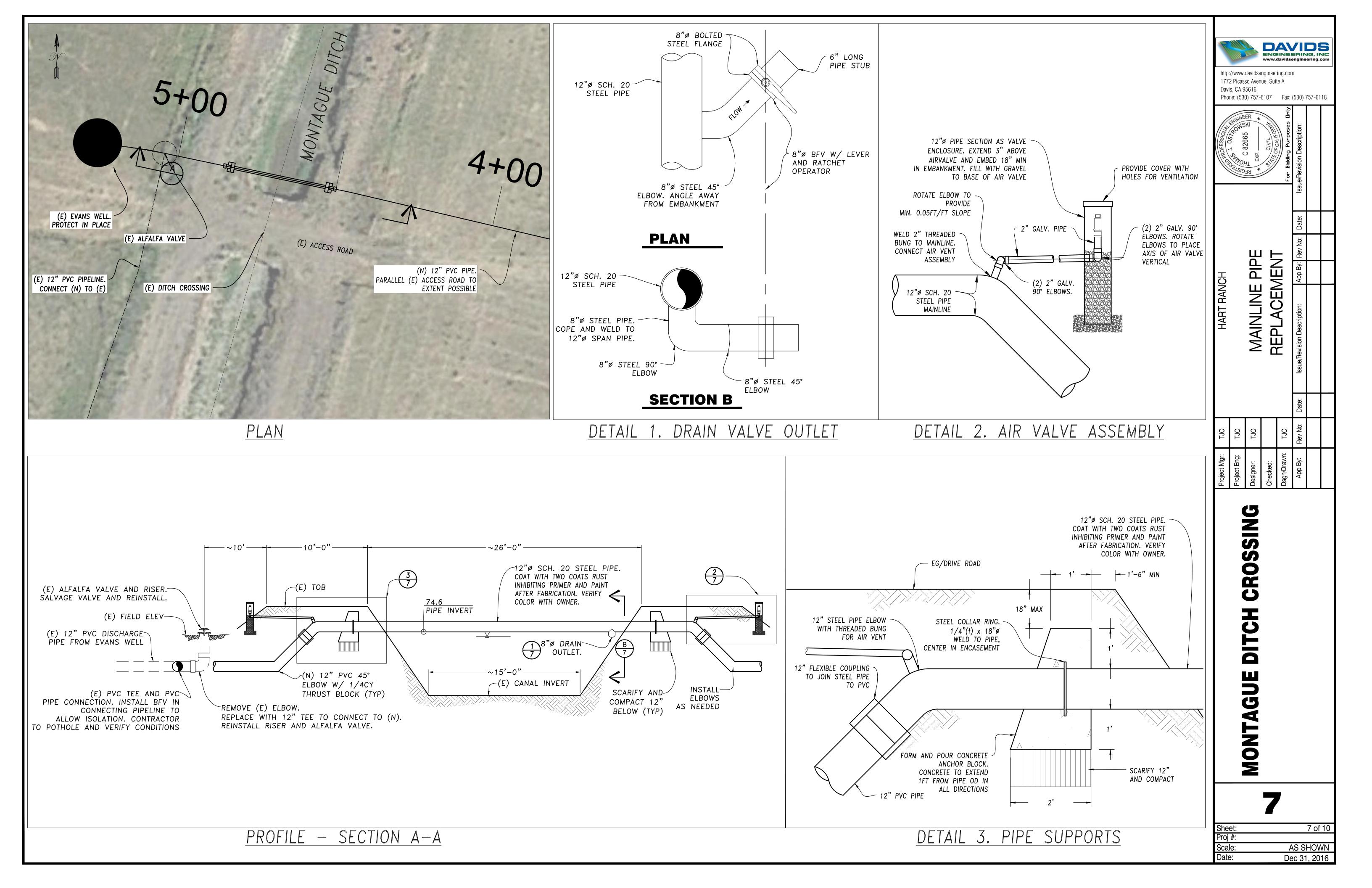
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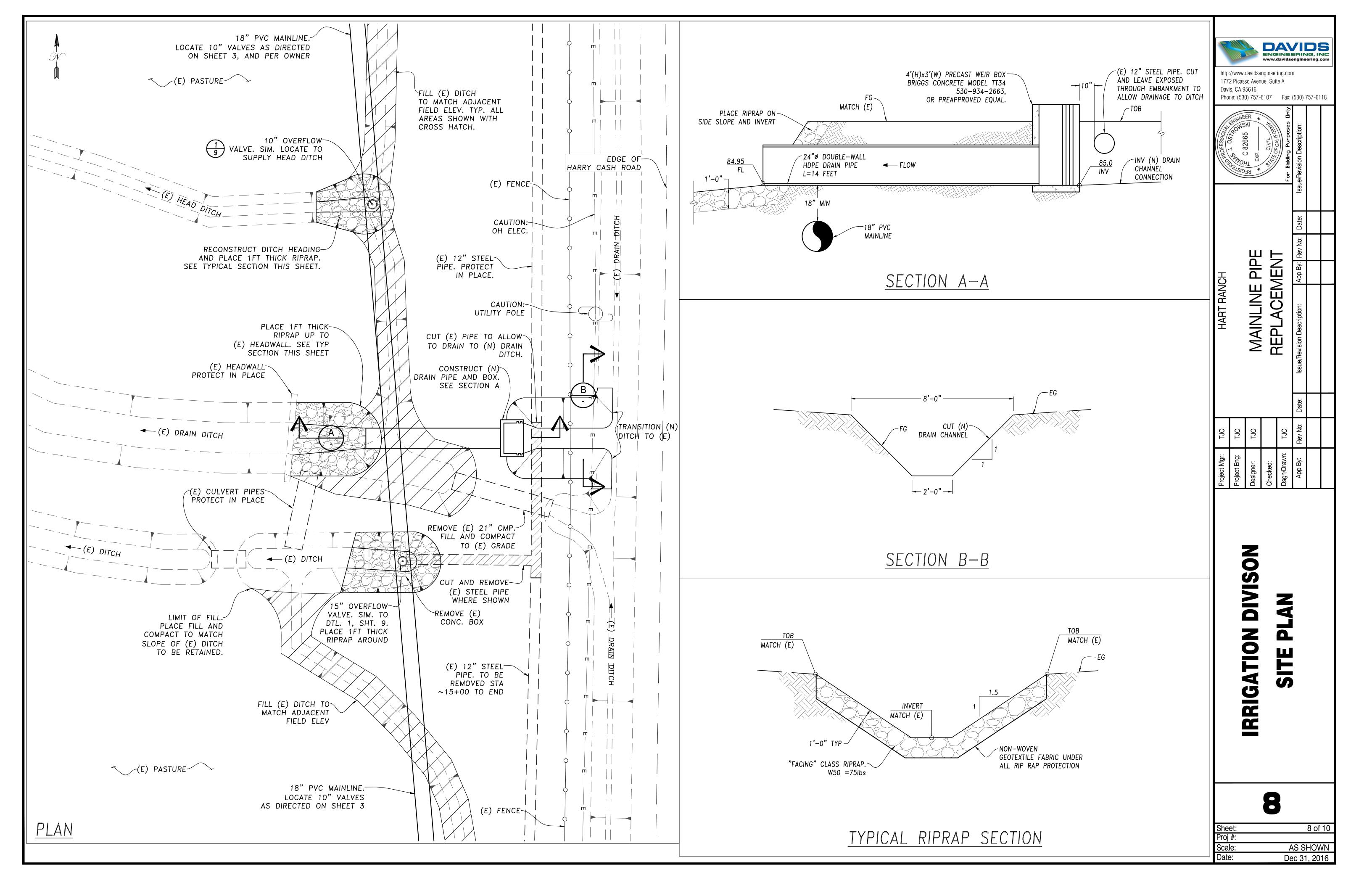
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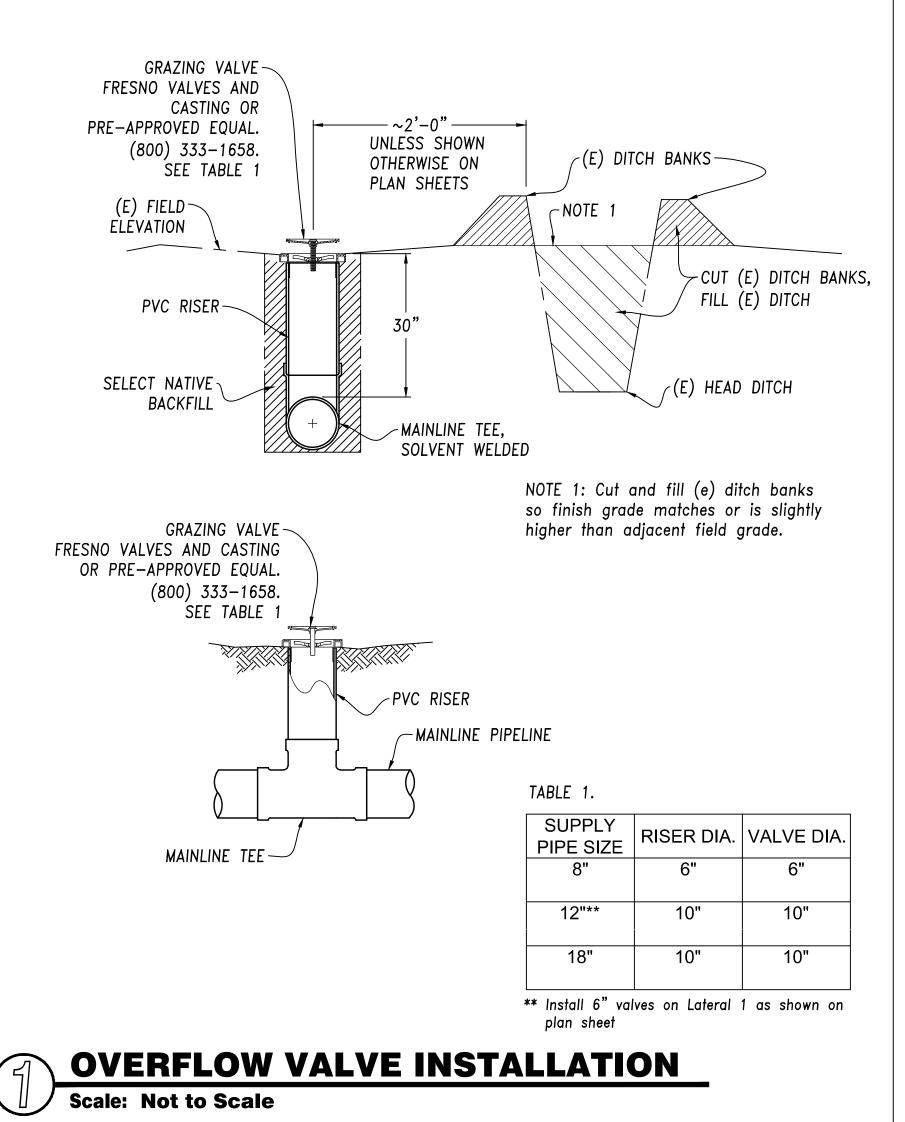
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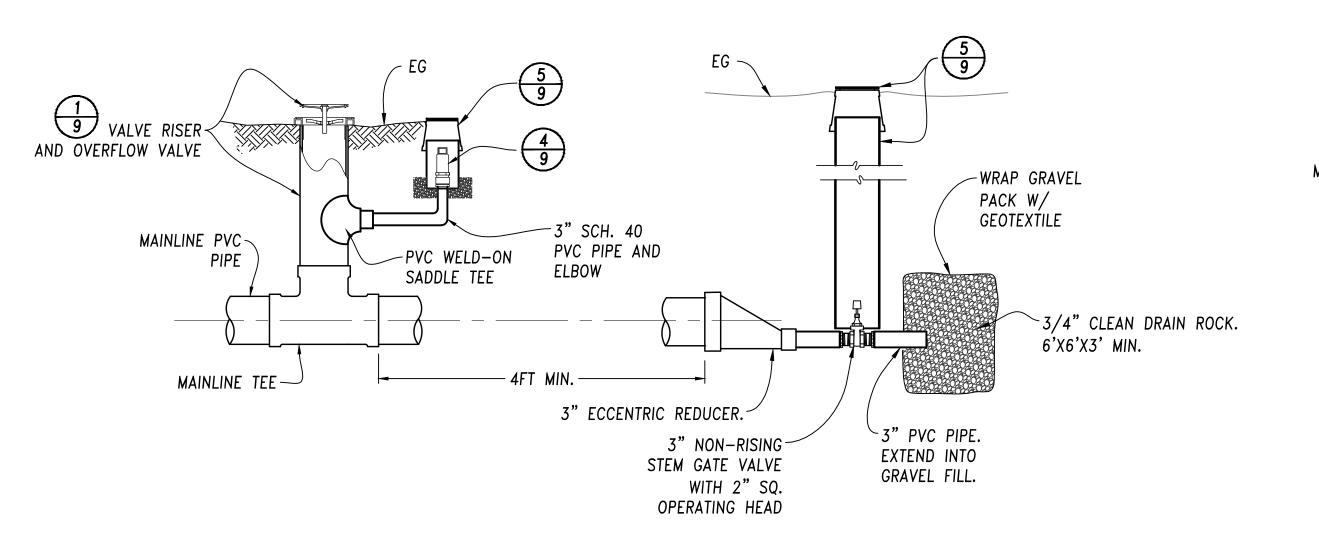


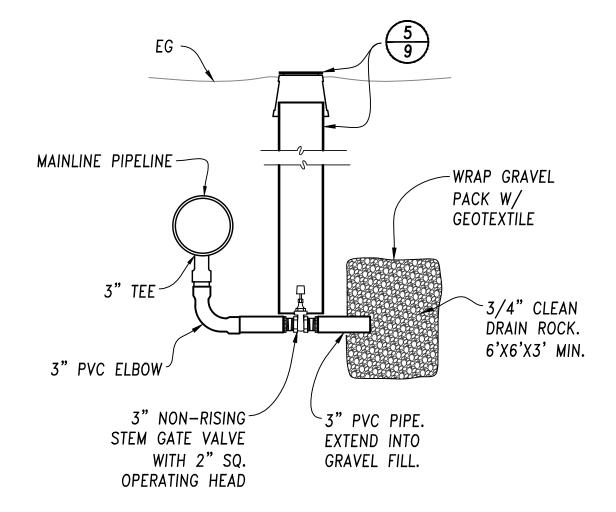












TYPICAL IN-LINE DRAIN VALVE ASSEMBLY - SECTION VIEW

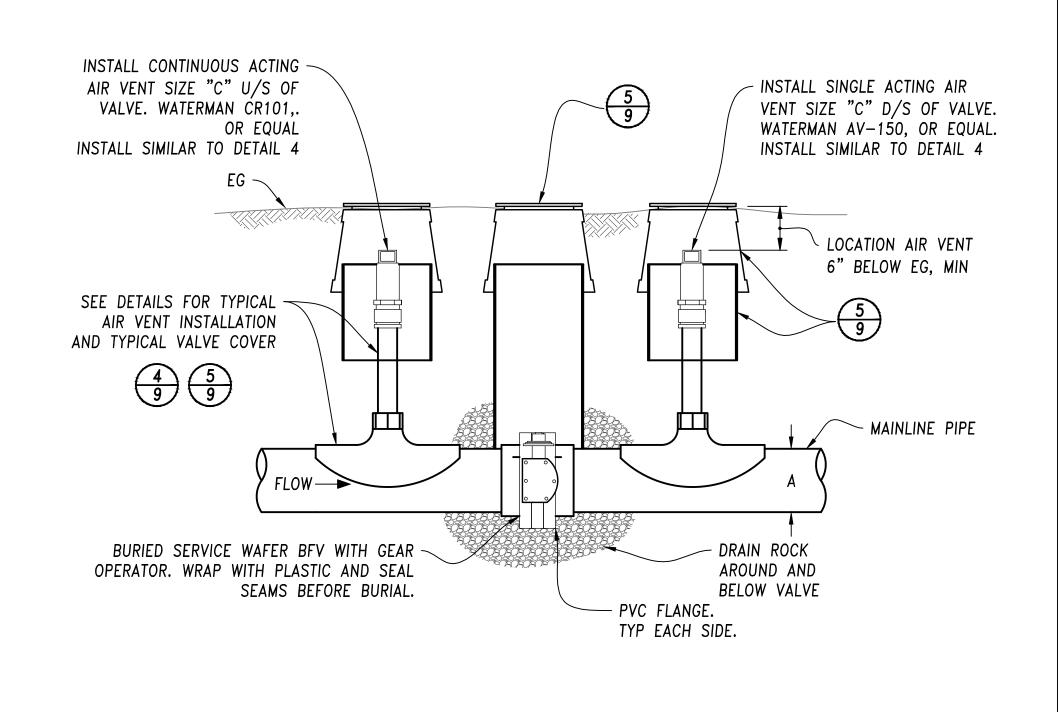


TYPICAL END RISER TEE AND

END DRAIN VALVE ASSEMBLY

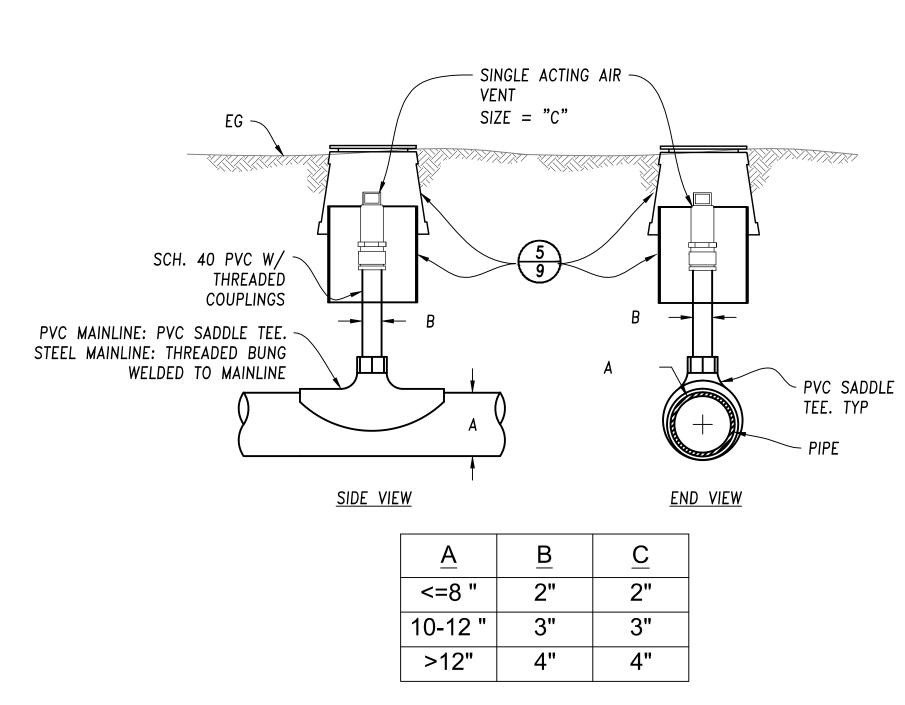
PIPELINE DRAIN ASSEMBLIES

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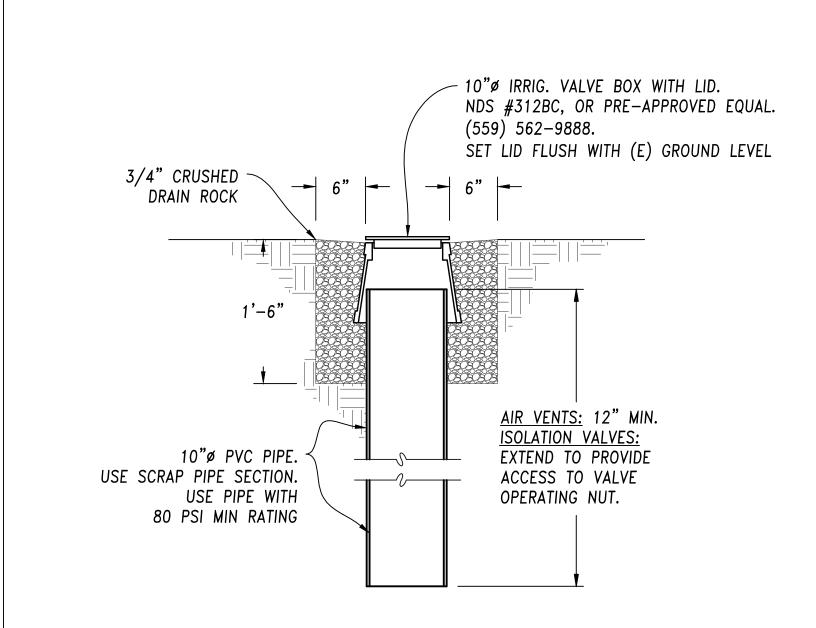


ISOLATION VALVE

Scale: Not to Scale







TYPICAL V	ALVE ACCESS AND COVER
Scale: Not to Sca	е

DETAILS

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http://www.davidsengineering.com

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PIPE

MAINLINE

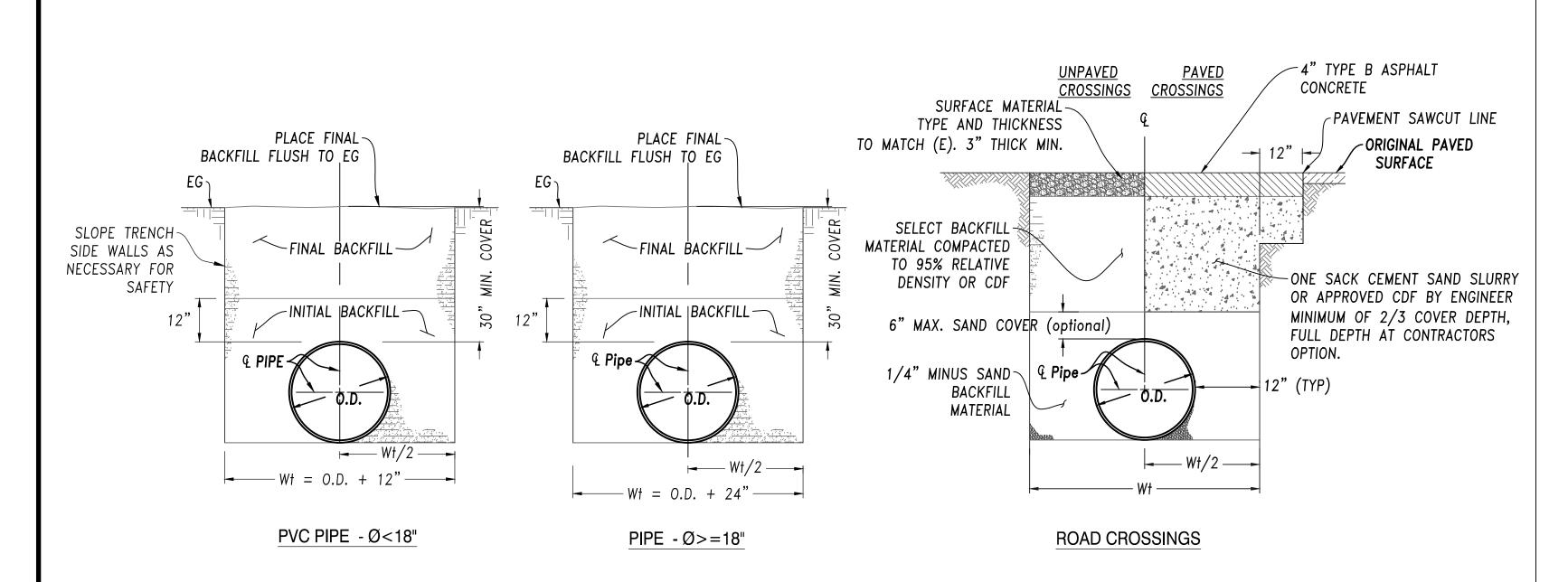
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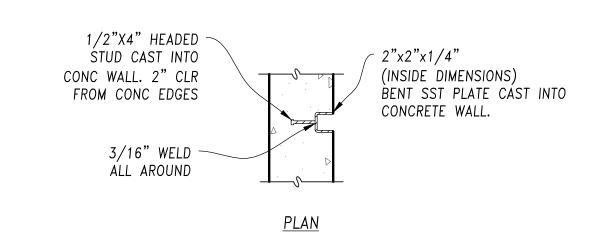
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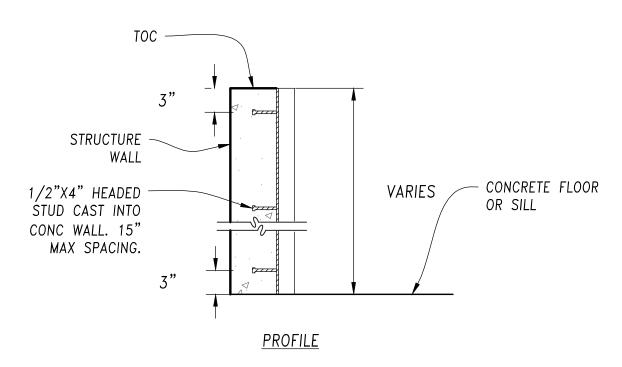
Davis, CA 95616

9 of 10 AS SHOWN Dec 31, 2016



HARRY CASH ROAD CROSSING AND CROSSING OF 'THE LANE' SHALL UTILIZE THE "ROAD CROSSING" TRENCH DETAIL FOR THE ENTIRE LENGTH OF THE COUNTY RIGHT—OF—WAY, OR 24 FEET, WHICH EVER IS LONGER.





NOTES: 1. Board guides to be aligned properly to accept straight boards.



BOARD GUIDES

Scale: Not to Scale

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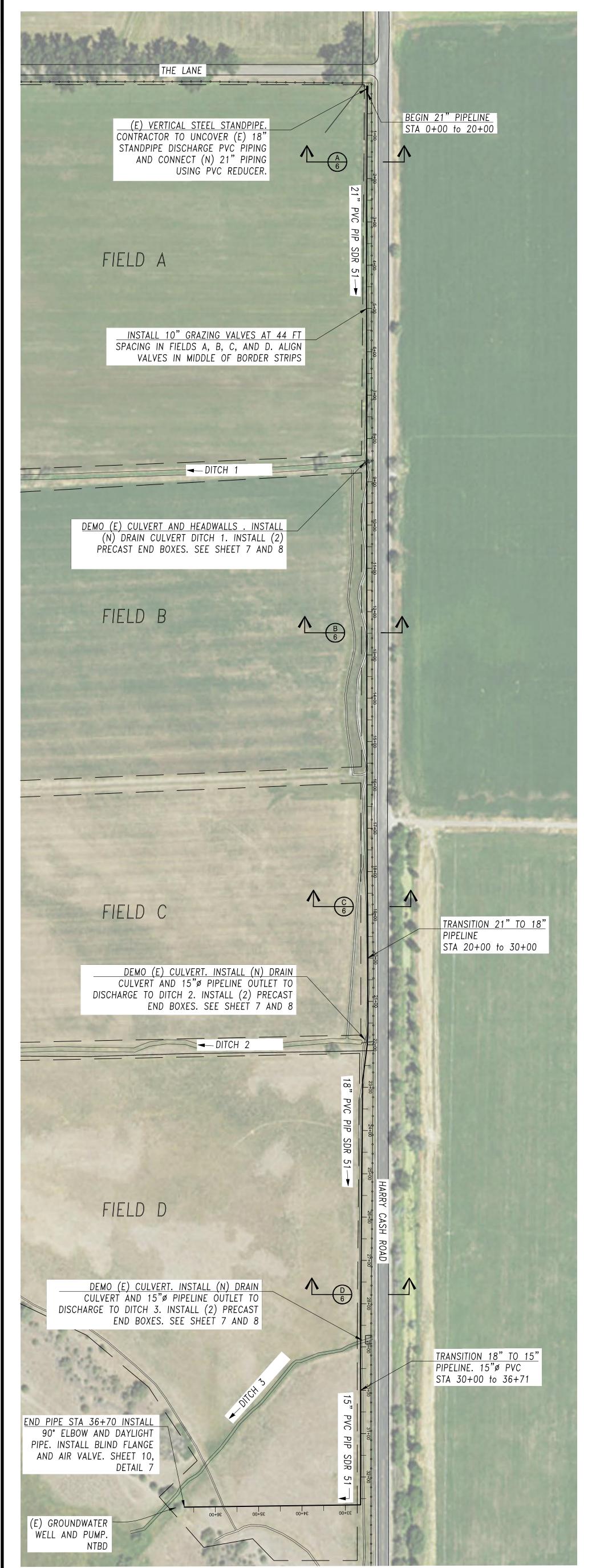
MAINLINE PIPE REPLACEMENT HART RANCH

DETAILS

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Sheet:	10 of 10
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Scale:	AS SHOWN
Date:	Dec 31, 2016

TRENCH DETAILS Scale: NOT TO SCALE



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Sheet Index:

- Project Overview
- Plan and Profile Mainline South 1
- Plan and Profile Mainline South 2 Plan and Profile - Mainline South 3
- Plan and Profile Mainline South 4 Typical Pipe Installation Sections
- Typical Culvert Installation and Pipe Outlet Plan Typical Culvert Installation and Pipe Outlet — Sections
- General Details 1 General Details 2

Notes

- 1. All construction shall be in accordance with these drawings and the specifications bearing the project name "Hart Ranch Mainline Pipe Replacement Project".
- 2. Landowner shall be responsible for obtaining any needed permits, easements, and/or right-of-ways.
- 3. Contractor will be responsible for locating and protecting all utilities. Special safety precautions to be taken when working in the vicinity of gas, oil, and electrical lines (buried and overhead).
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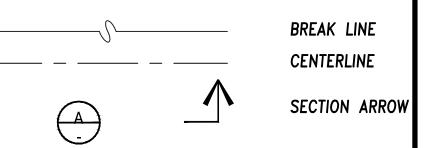
> Hart Ranch Contact: Blair Hart Cell: 530-598-1051

Engineer: Davids Engineering Contact: Tommy Ostrowski, PE

Office: 530-757-6107 ext. 108 Cell: 805-305-5335

Email: tommy@davidsengineering.com

Legend





CONCRETE

EARTH

RIPRAP/AB

SAND

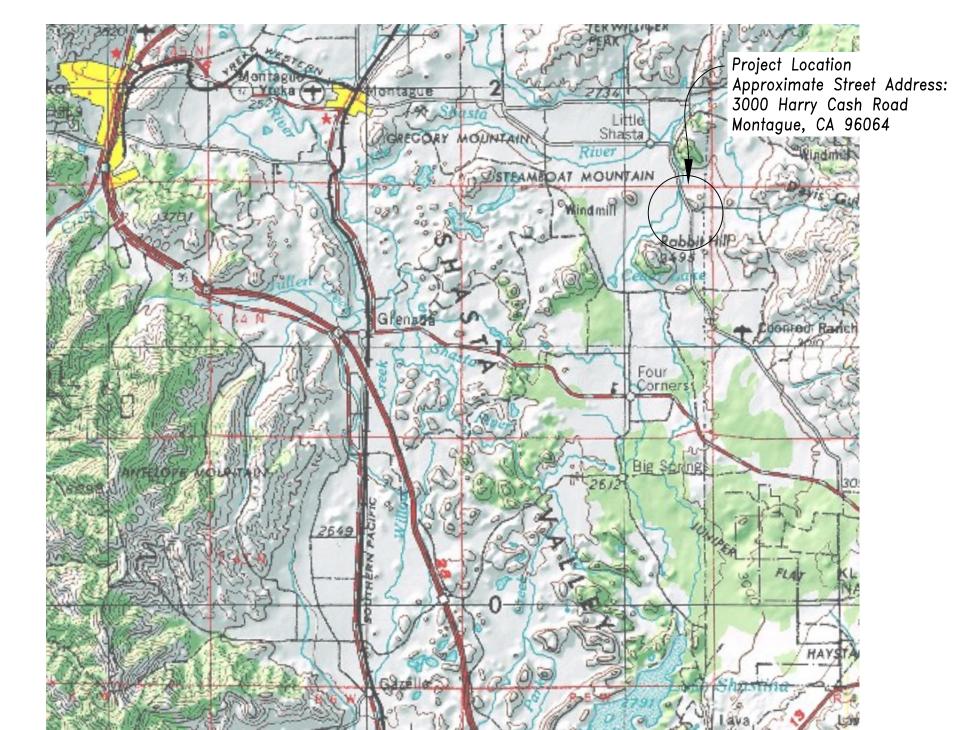
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PIPELINE SUMMARY

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15"	PVC PIP	671
	SDR 51	
18"	PVC PIP	1000
	SDR 51	
21"	PVC PIP	2000
	SDR 51	

Abbreviations

2.5 : 1	HORIZONTAL : VERTICAL SLOPE	INV	INVERT
AC	ACRE	L=	LENGTH =
AF	ACRE-FEET	MAX	MAXIMUM
APPROX	APPROXIMATELY	MIN	MINIMUM
BFV	BUTTERFLY VALVE	(N)	NEW
BM	BENCH MARK	NTBD	NOT TO BE DISTURBED
CFS	CUBIC FEET PER SECOND	0.C.	ON CENTER
CL	CLASS	O.D.	OUTSIDE DIAMETER
CLEAR.	CLEARANCE	PIP	PLASTIC IRRIGATION PIPE
CONC	CONCRETE	PSI	POUNDS PER SQUARE INCH
CTR	CENTER	PVC	POLYVINYL CHLORIDE
CTD	CENTERED	REV	REVISION
DEG	DEGREE	S=	SLOPE =
DIA	DIAMETER	SCH	SCHEDULE
DTL	DETAIL	SHT	SHEET
(E)	EXISTING	SDR	STANDARD DIMENSION RATIO
ÈÁ	EACH	SIM	SIMILAR
EF	EACH FACE	STA	STATION
EG	EXISTING GROUND	SST	STAINLESS STEEL
ELEV	ELEVATION	t	THICKNESS
EW	EACH WAY	TBR	TO BE REMOVED
FG	FINISHED GRADE	TOB	TOP OF BANK
FL	FLOWLINE	TOC	TOP OF CONCRETE STRUCTURE
FT	FEET	TOW	TOP OF WEIR WALL
GALV	GALVANIZED	TYP	TYPICAL
HWM	HIGH WATER MARK	UNO	UNLESS NOTED OTHERWISE
HWL	HIGH WATER LEVEL	VERT	VERTICAL
		WSE	WATER SURFACE ELEVATION



Sheet: 1 of 10 Proj #: As Shown Date: DEC 31, 2016

Project Overview

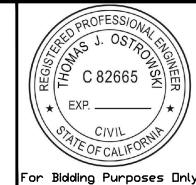
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MAINLINE PIPE REPLACEMENT SOUTH OF LANE

Issue/Revision Description:

App By: Rev No: Date:

HART RANCH

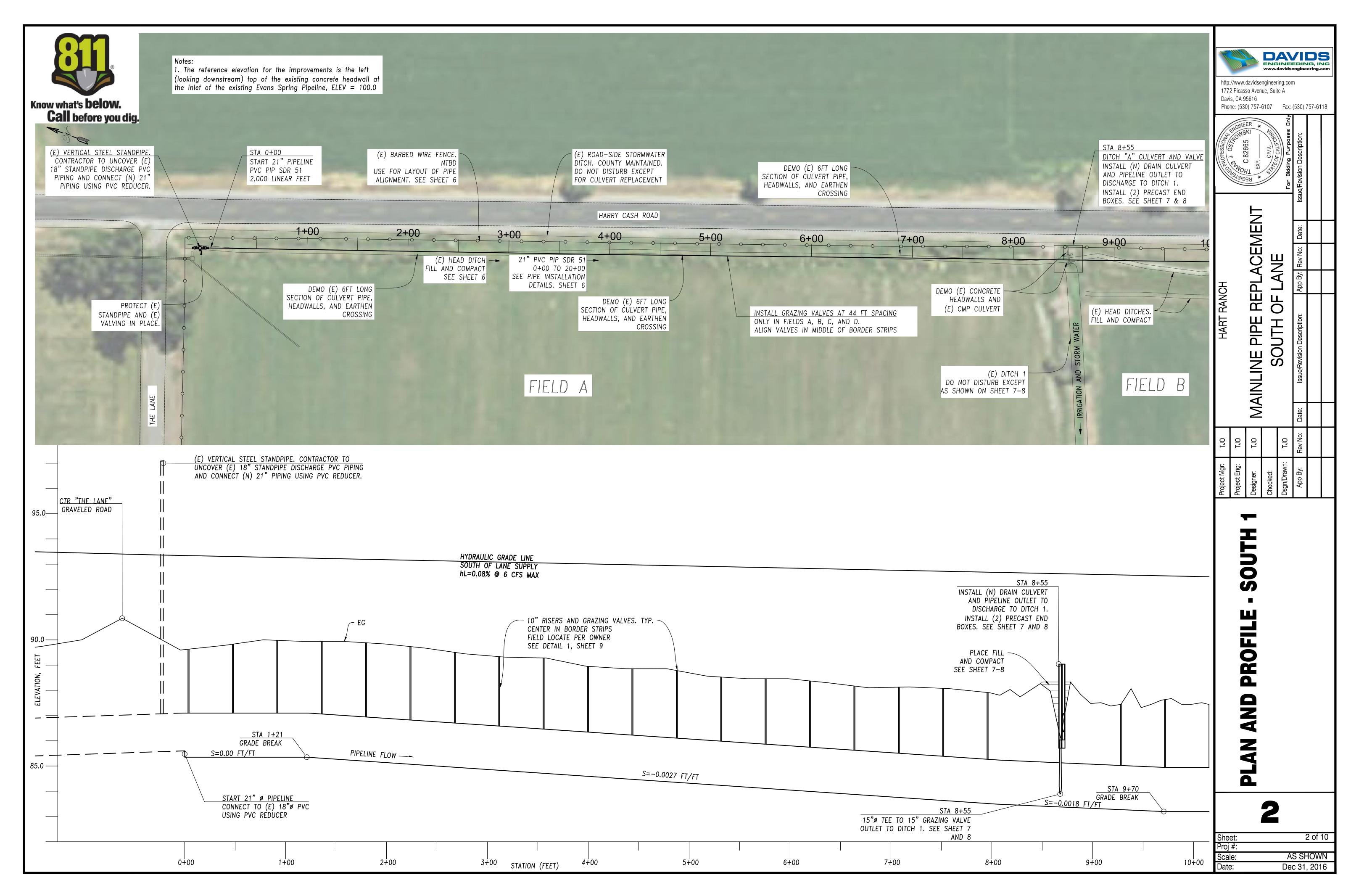


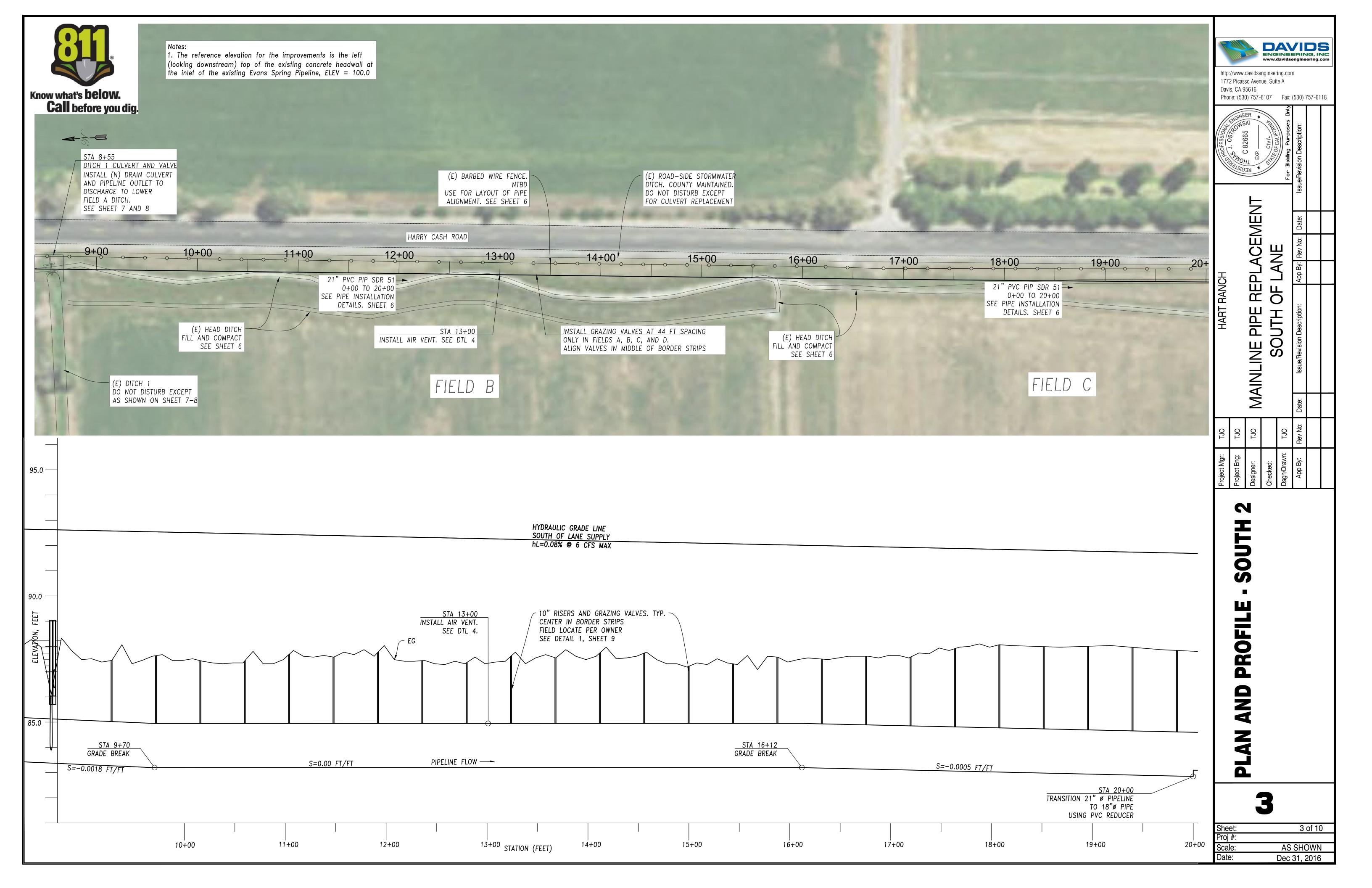
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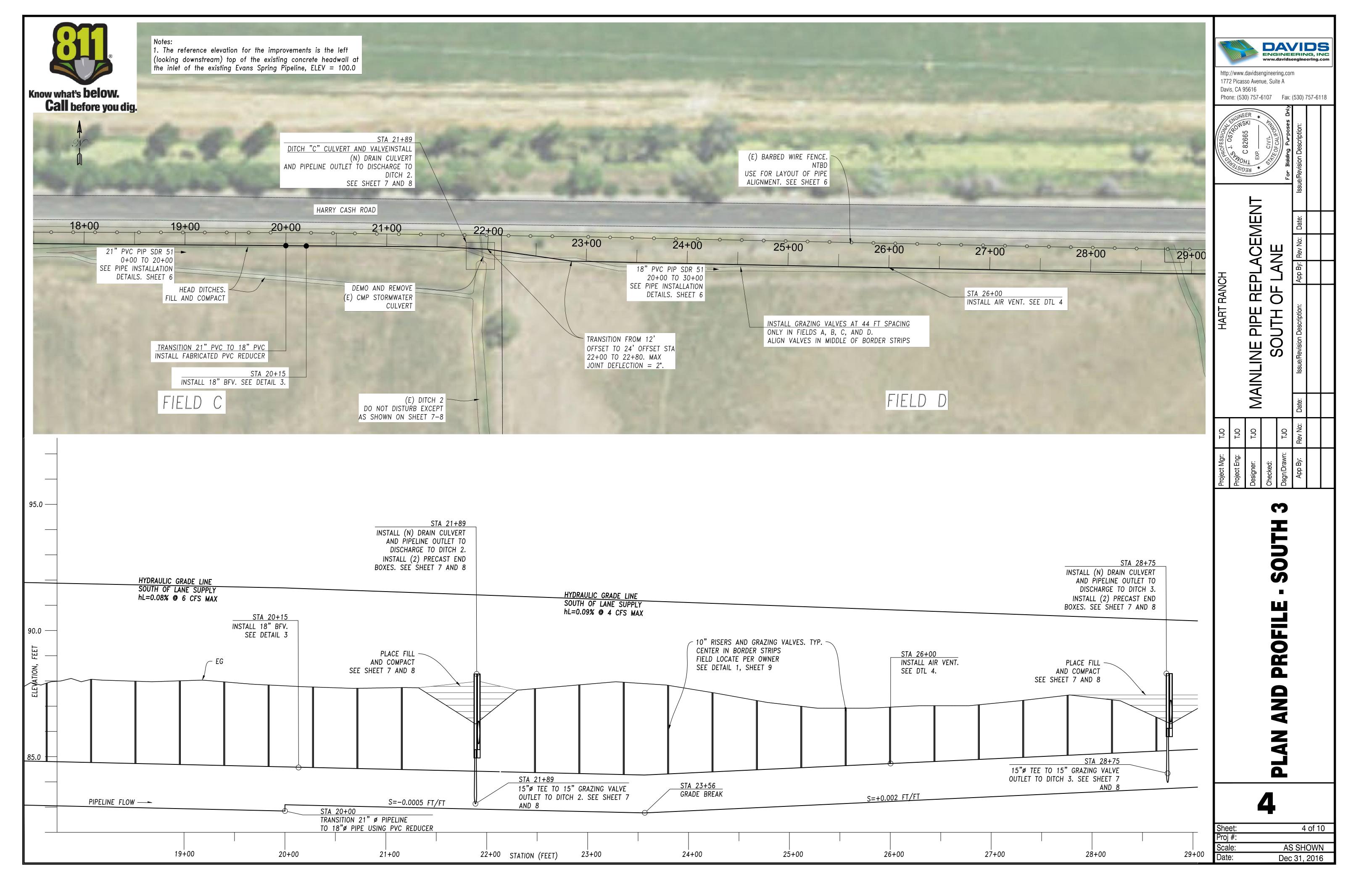


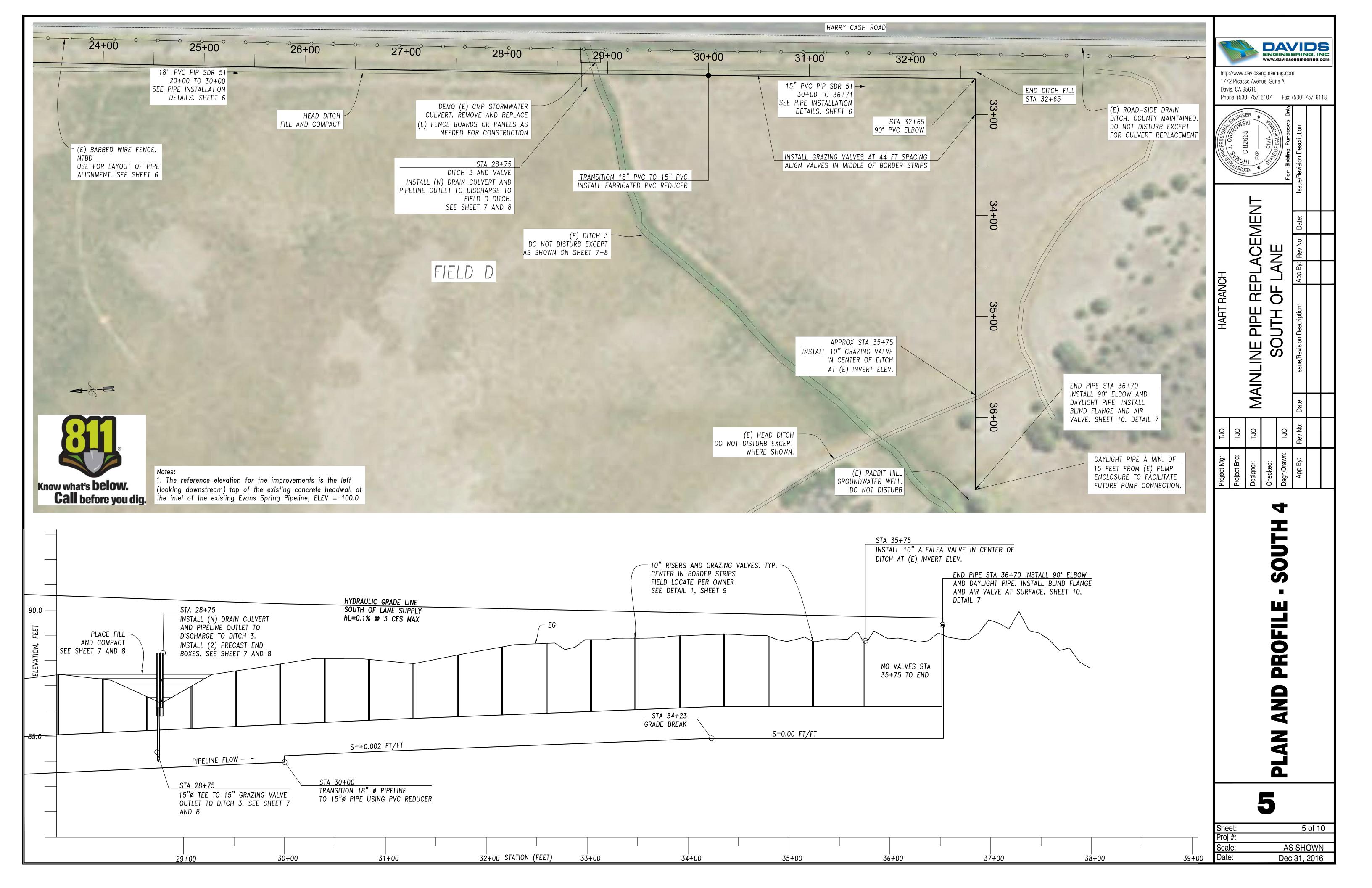
http://www.davidsengineering.com 1772 Picasso Avenue, Suite A Davis, CA 95616 Phone: (530) 757-6107 Fax: (530) 757-6118

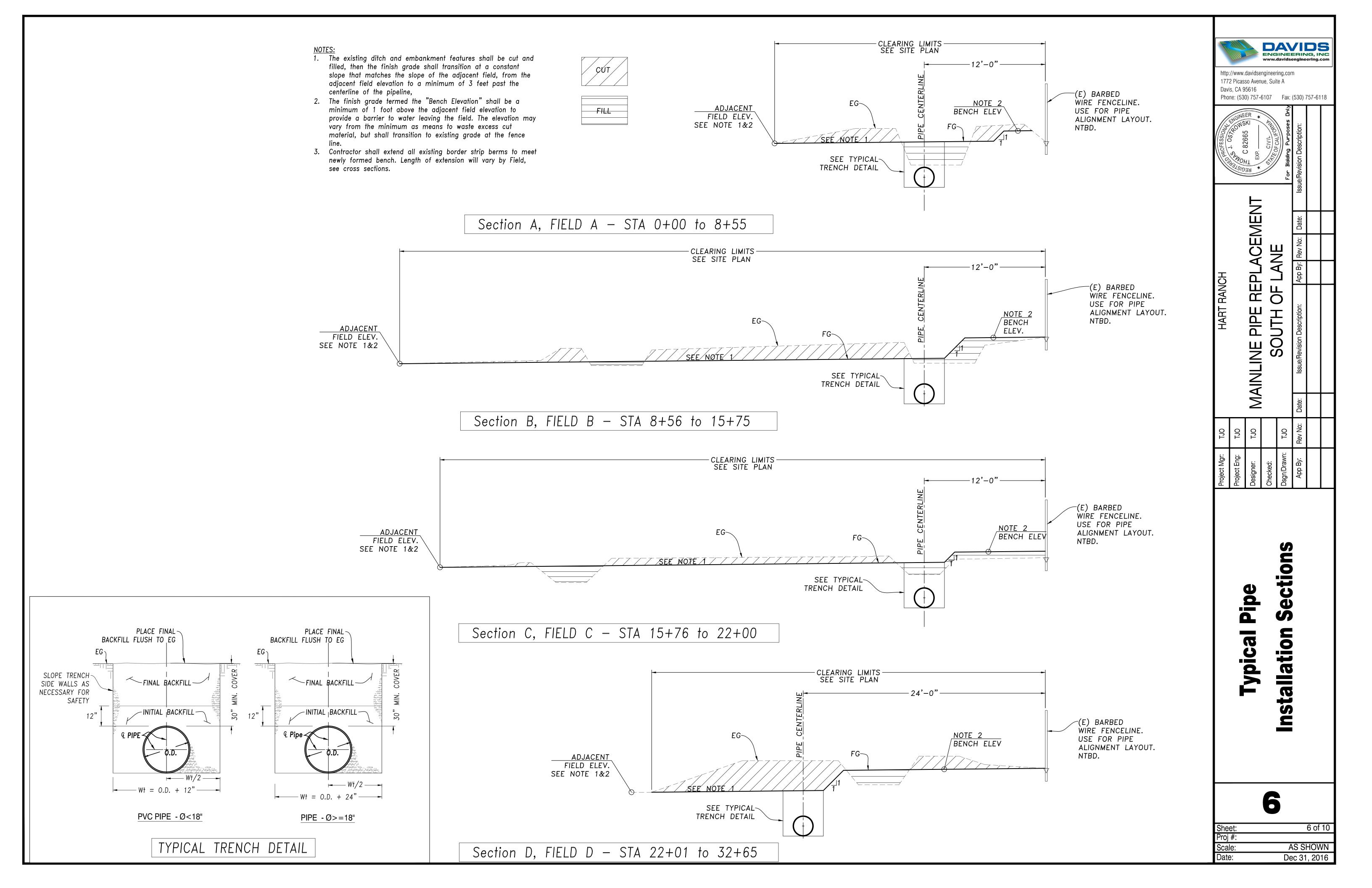
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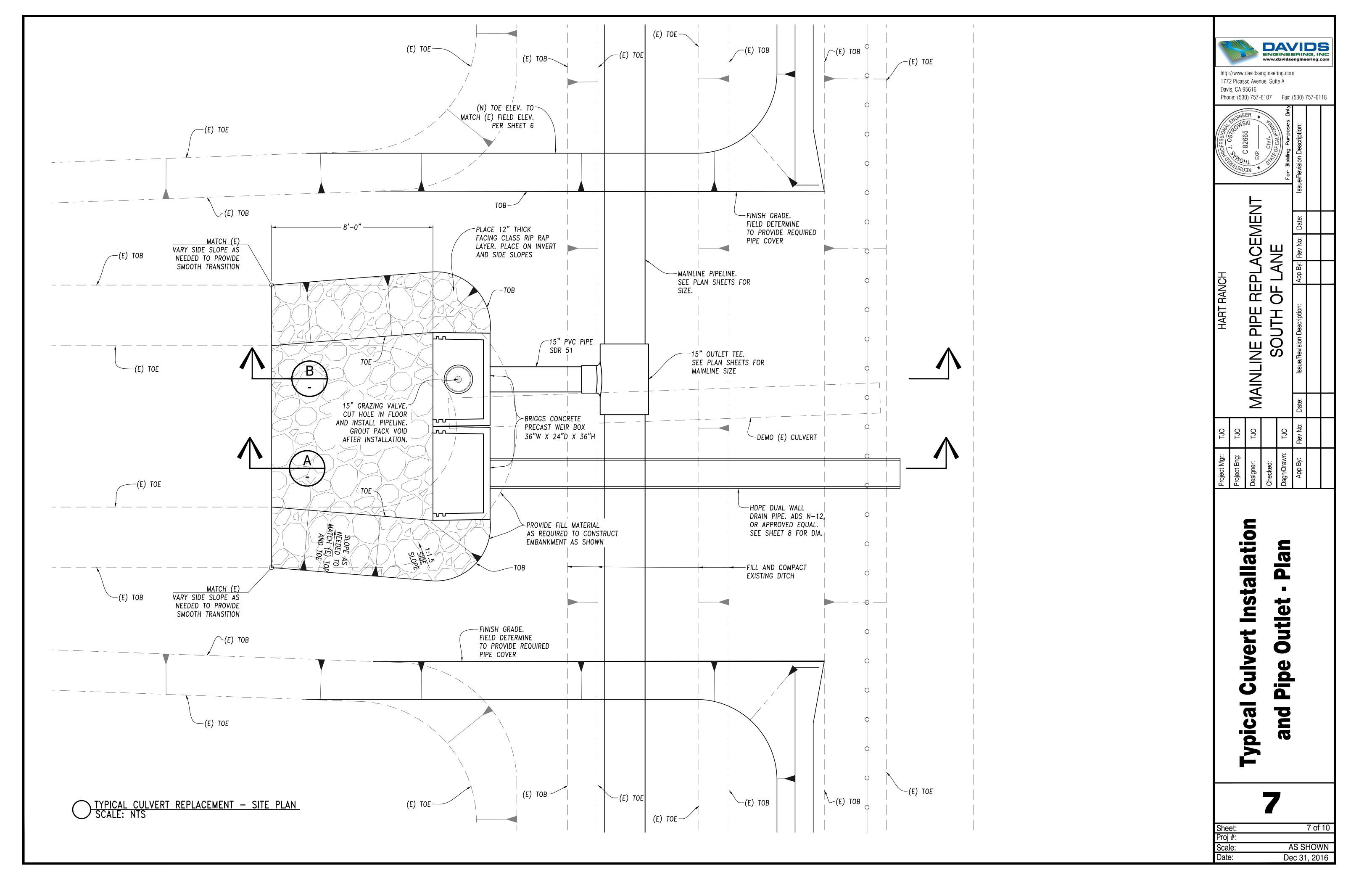


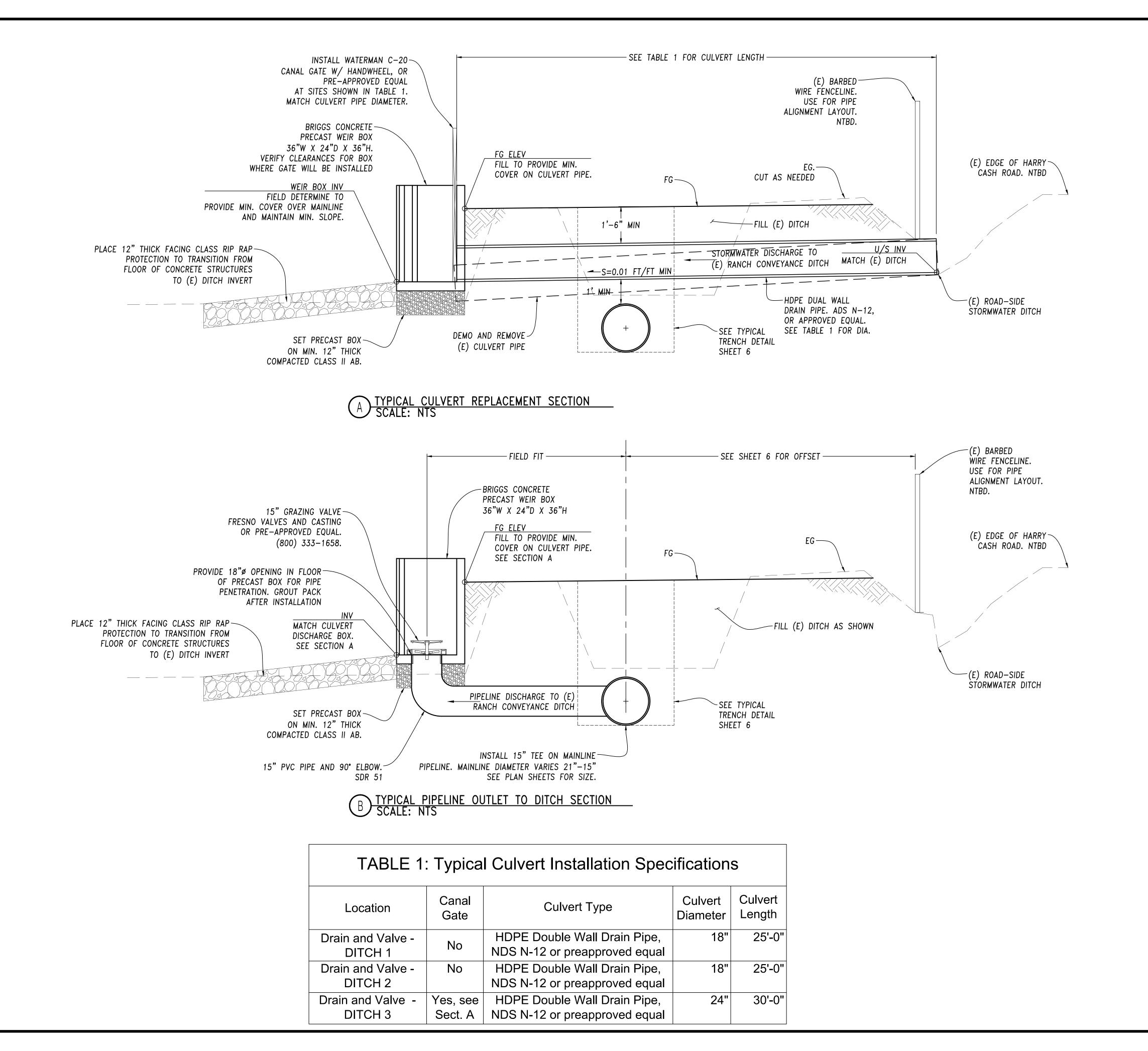












Typical Culvert Installation and Pipe Outlet - Sections

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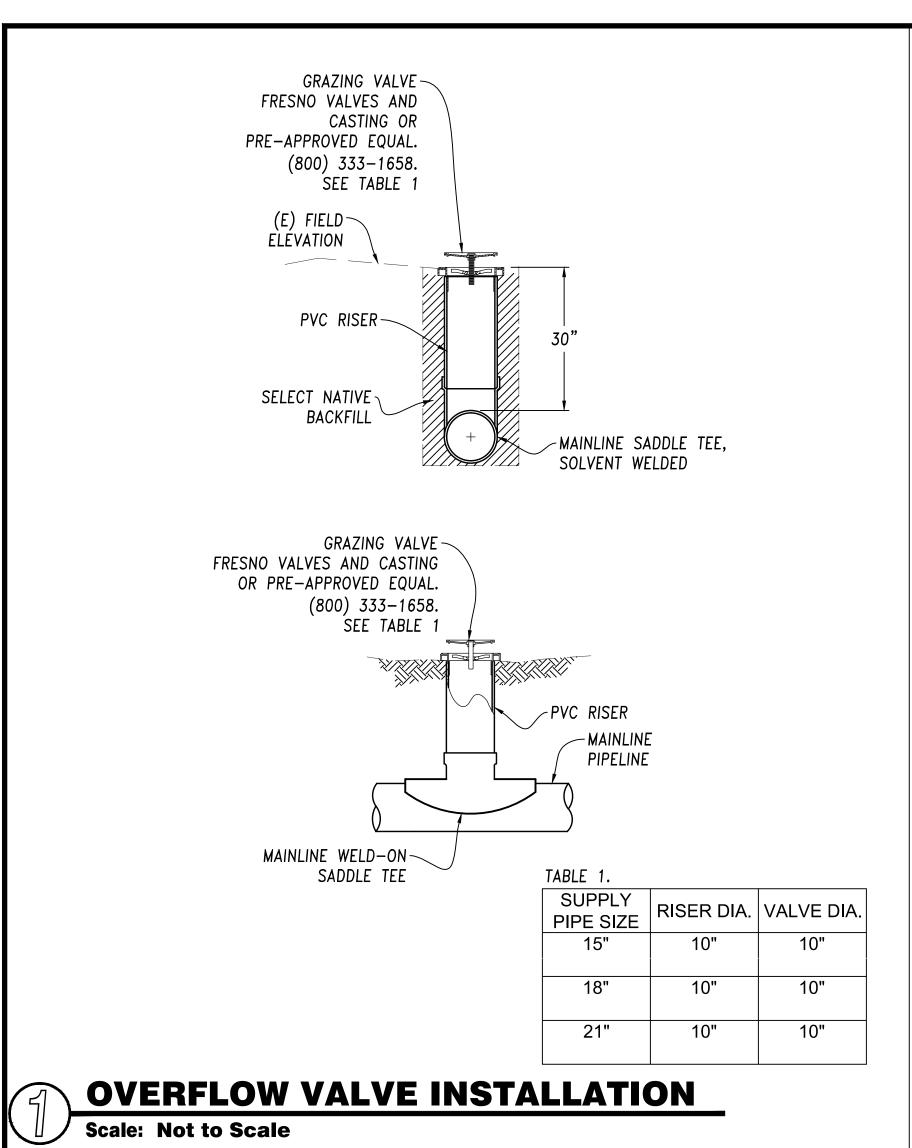
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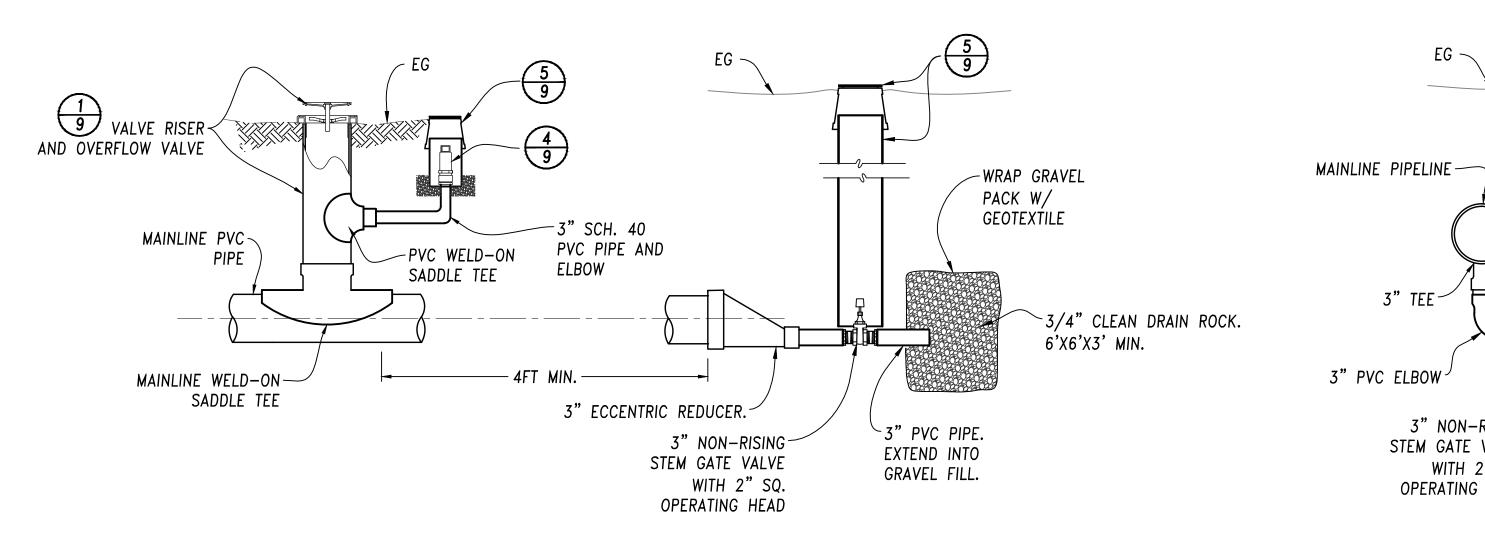
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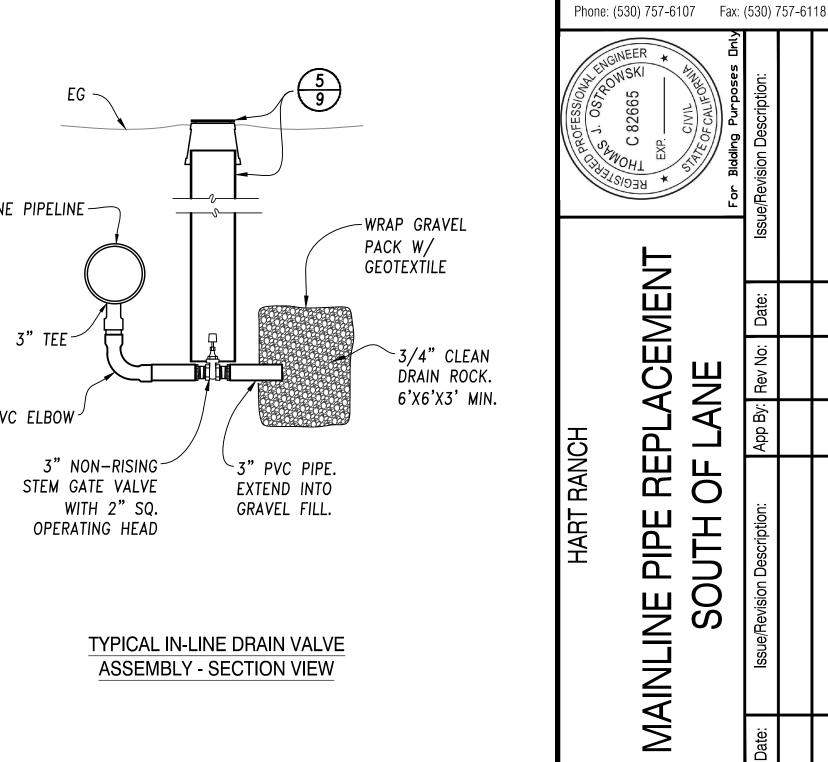
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Davis, CA 95616

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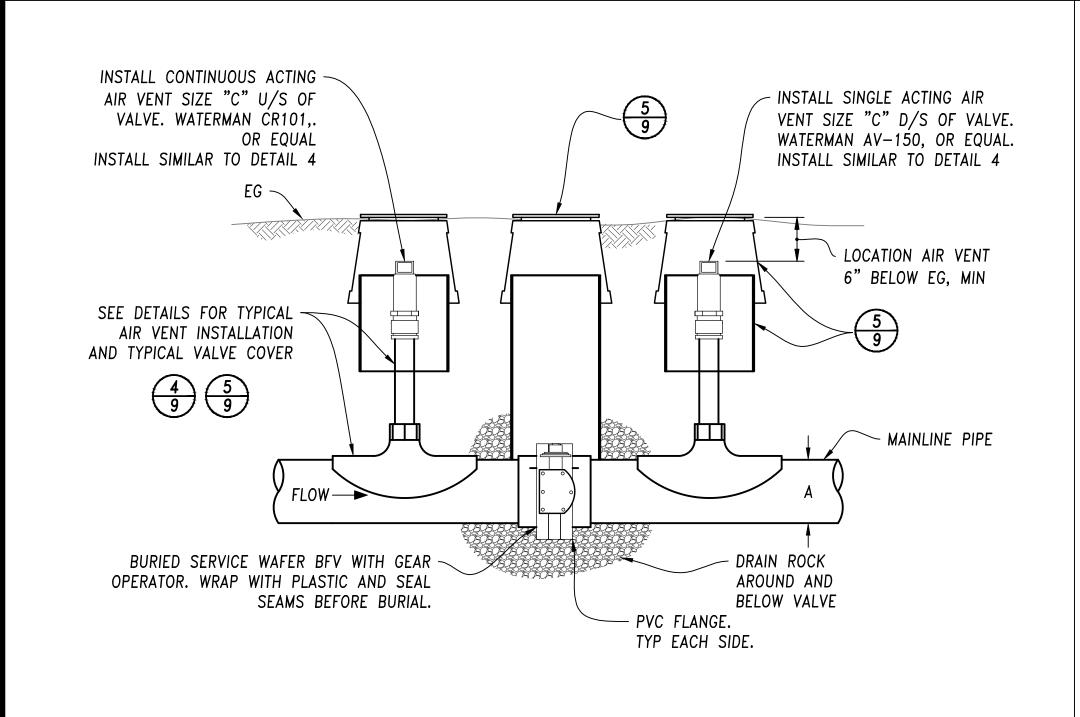


TYPICAL END RISER TEE AND

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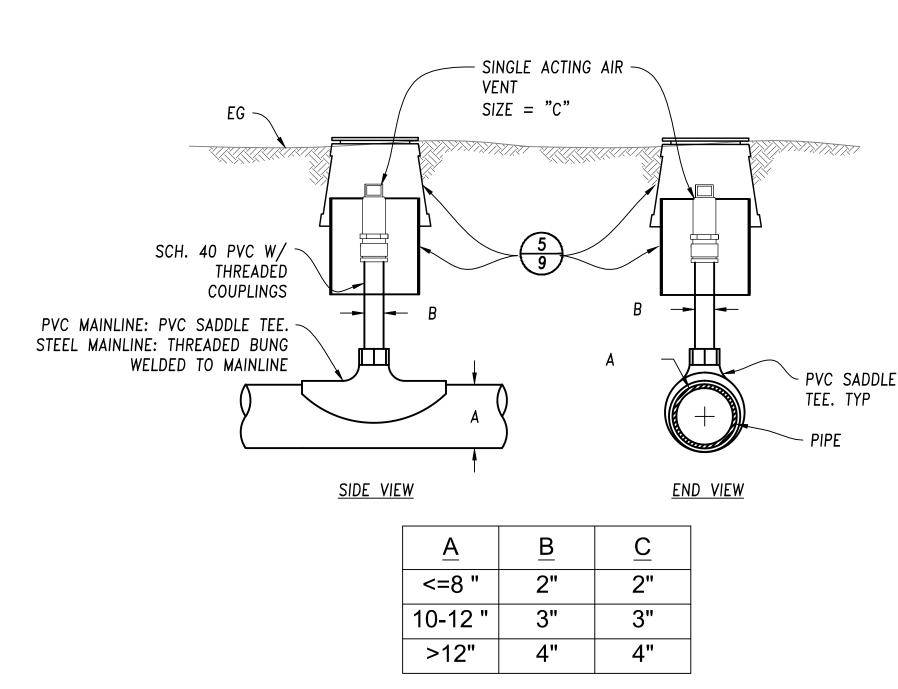
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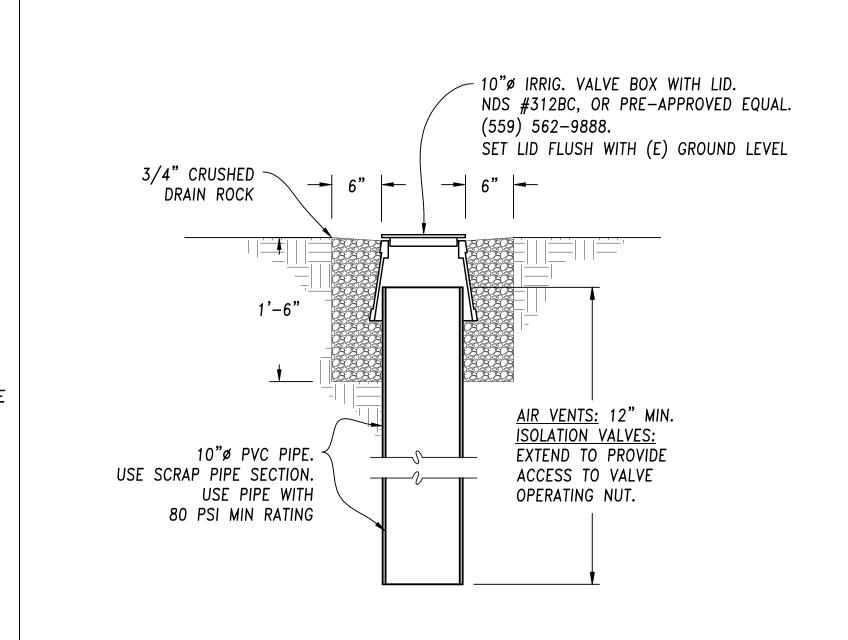
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DETAILS

TYPICAL VALVE ACCESS AND COVER Scale: Not to Scale

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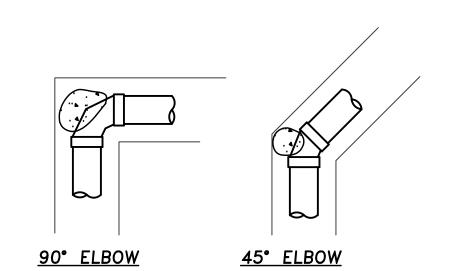
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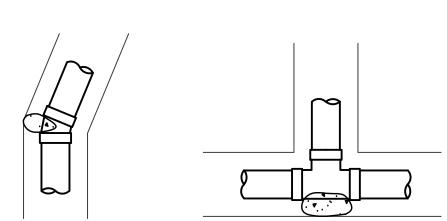
DAVIDS ENGINEERING, INC www.davidsengineering.com

http://www.davidsengineering.com 1772 Picasso Avenue, Suite A

Davis, CA 95616

TYPICAL AIR VENT INSTALLATION Scale: Not to Scale



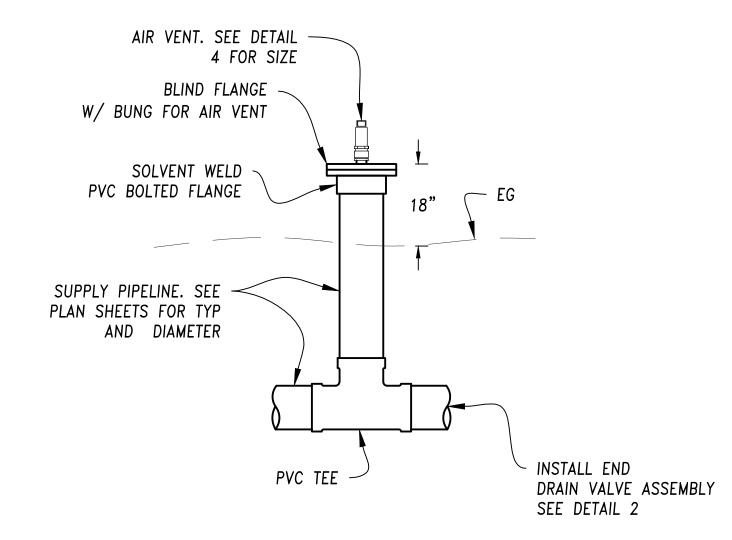


22.5° ELBOW		<u>TEE</u>
	<u>WYE</u>	

NOTES:
1. CONCRETE SHALL NOT EXTEND PAST FITTINGS



	Thrust Block Size Requirements for Horizontal Bends at 15 psi							
Pipe Diameter (inches)	Tee and Wye Area (ft2)	Tee and Wye Volume (CY)	90° Area (ft²)	90° Volume (CY)	45 ^o Area (ft ²)	45° Volume (CY)	22.5 ^o Area (ft ²)	22.5 ⁰ Volume (CY)
10	1.77	0.5	2.50	0.7	1.35	0.4	0.69	0.2
12	2.54	0.7	3.60	1.0	1.95	0.5	0.99	0.3
15	3.98	1.1	5.62	1.5	3.04	0.8	1.55	0.4
18	5.73	1.5	8.10	2.1	4.38	1.2	2.23	0.6
21	7.79	2.1	11.02	2.9	5.96	1.6	3.04	0.8
24	10.18	2.7	14.39	3.8	7.79	2.1	3.97	1.1
30	15.90	4.2	22.49	6.0	12.17	3.2	6.21	1.6
36	22.90	6.1	32.39	8.6	17.53	4.6	8.94	2.4





STA 36+50 - END DETAIL

Scale: Not to Scale

HART RANCH PIPE SOUTH MAINLINE

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Davis, CA 95616
Phone: (530) 757-6107 Fax: (530) 757-6118

LACEMENT ANE

REPL OF LA

DETAILS

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Sheet:	10 of 10
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APPENDIX D

Construction Plans for Little Shasta River Hart Water Diversion Eco Logic and NHC February 2011

SHEET TITLE PAGE COVER SHEET G1 GENERAL NOTES, DEMOLITION, & DEWATERING PLAN G2 SITE PLAN C100 CHANNEL REALIGNMENT PLAN C101 CHANNEL REALIGNMENT GRADING PLAN C102 DIVERSION CHANNEL PLAN C103 INTAKE/FISH SCREEN STRUCTURE PLAN C120 FISH BYPASS PIPELINE PLAN AND PROFILE C200 RIVER REALIGNMENT PROFILE AND CROSS SECTIONS C201 MECHANICAL DETAILS MECHANICAL DETAILS MECHANICAL DETAILS MECHANICAL DETAILS WATER WHEEL ELEVATIONS AND DETAILS TRASH RACK AND SLIDE GATE DETAILS MISCELLANEOUS STRUCTURAL DETAILS MISCELLANEOUS STRUCTURAL DETAILS S3 STRUCTURAL PLAN AND PROFILE S100 CONCRETE CHANNEL SECTIONS S101 PLANTING SHEET PLANTING AND BOULDER PLACEMENT DETAILS

FISH PASSAGE IMPROVEMENT PROJECT

California Department of Fish and Game

CONSTRUCTION PLANS FOR Little Shasta River Hart Water Diversion

FEBRUARY 2011

APPROVED BY:

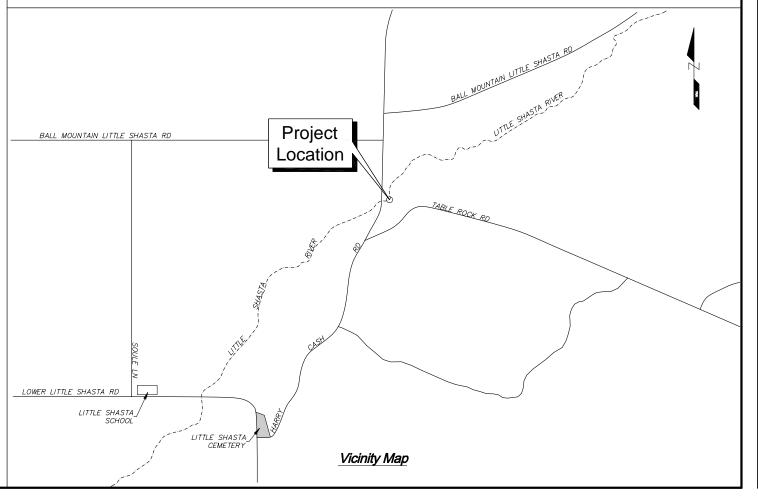
(date) LAND OWNER

HART WATER DIVERSION REPRESENTATIVE (date)

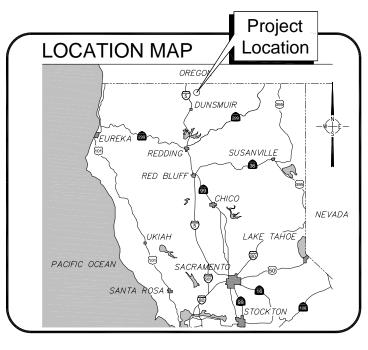
LEGEND

SHEET INDEX

NHC SURVEY CONTOUR LINES EXISTING TREES EXISTING RAILROAD TRACK EXISTING PAVED ROAD EXISTING DRIVEWAY EXISTING FENCE EXISTING BUILDINGS & STRUCTURES PROPOSED EARTHWORK CONSTRUCTION BASELINE WILLOW TRANSPLANT LIDAR SURVEY CONTOUR LINES 2-3' DIA BOUNDER 1 GALLON CONTAINER COTTONWOOD 1 GALLON CONTAINER PONDEROSA PINE ENGINEERED STREAMBED MATERIAL *********** ROCK BANK PROTECTION BRUSH MATTRESS FILTER LAYER



ECO:LOGIC 10381 Double R. Boulevard Reno, Nevada 89521 Phone: (775) 827-2311 Fax: (775) 827-2316 3950 industrial boulevard, suite 100c west sacramento, california 95691—6508 phone: (916) 371—7400 fax: (916) 371—7475 www.nhcweb.com LEONARD J. HOWARD CALIFORNIA REGISTERED PROFESSIONAL ENGINEER NO. # 53319 northwest hydraulic consultants



Project Location Map

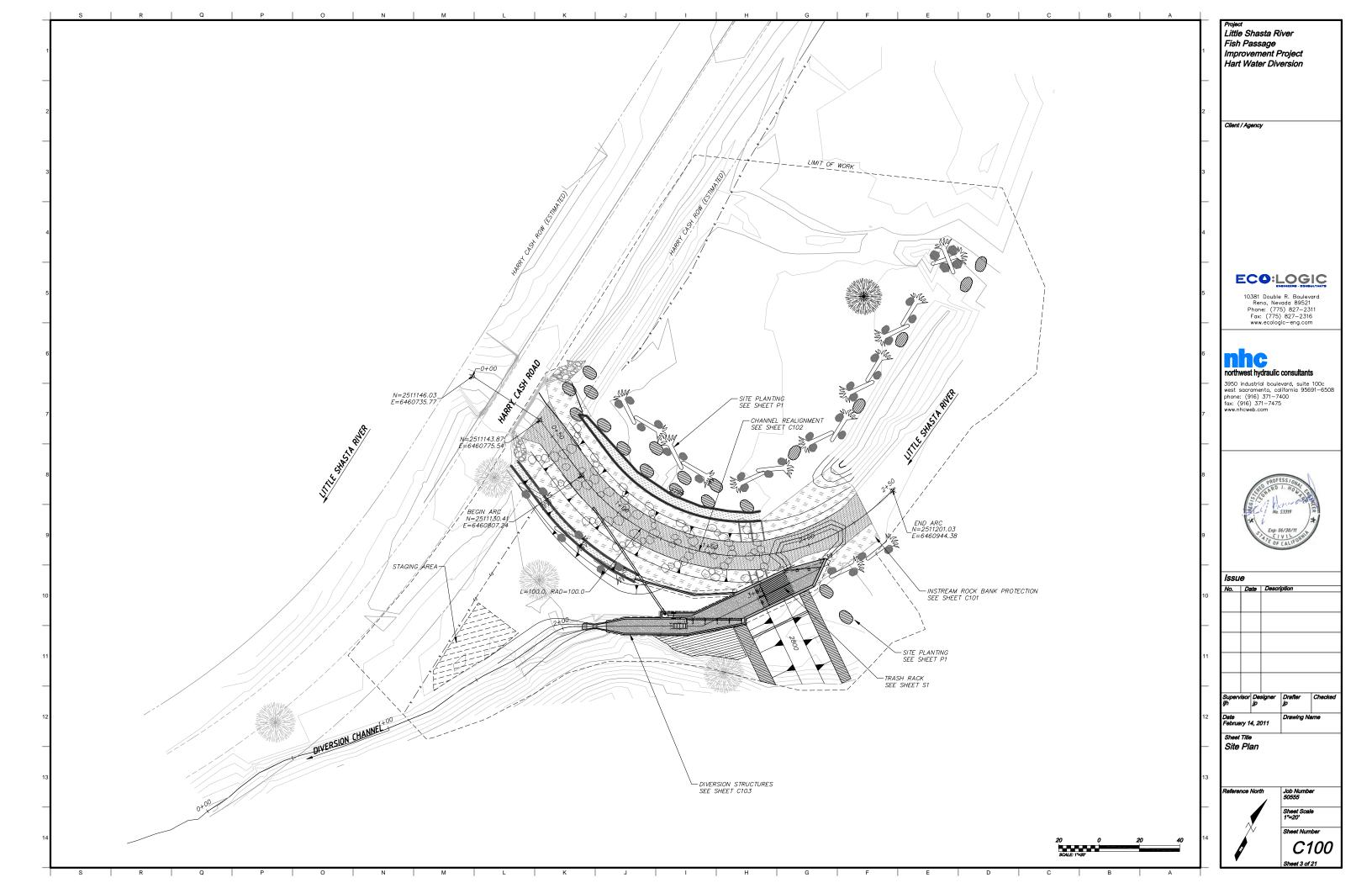
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					No.	Date	Description
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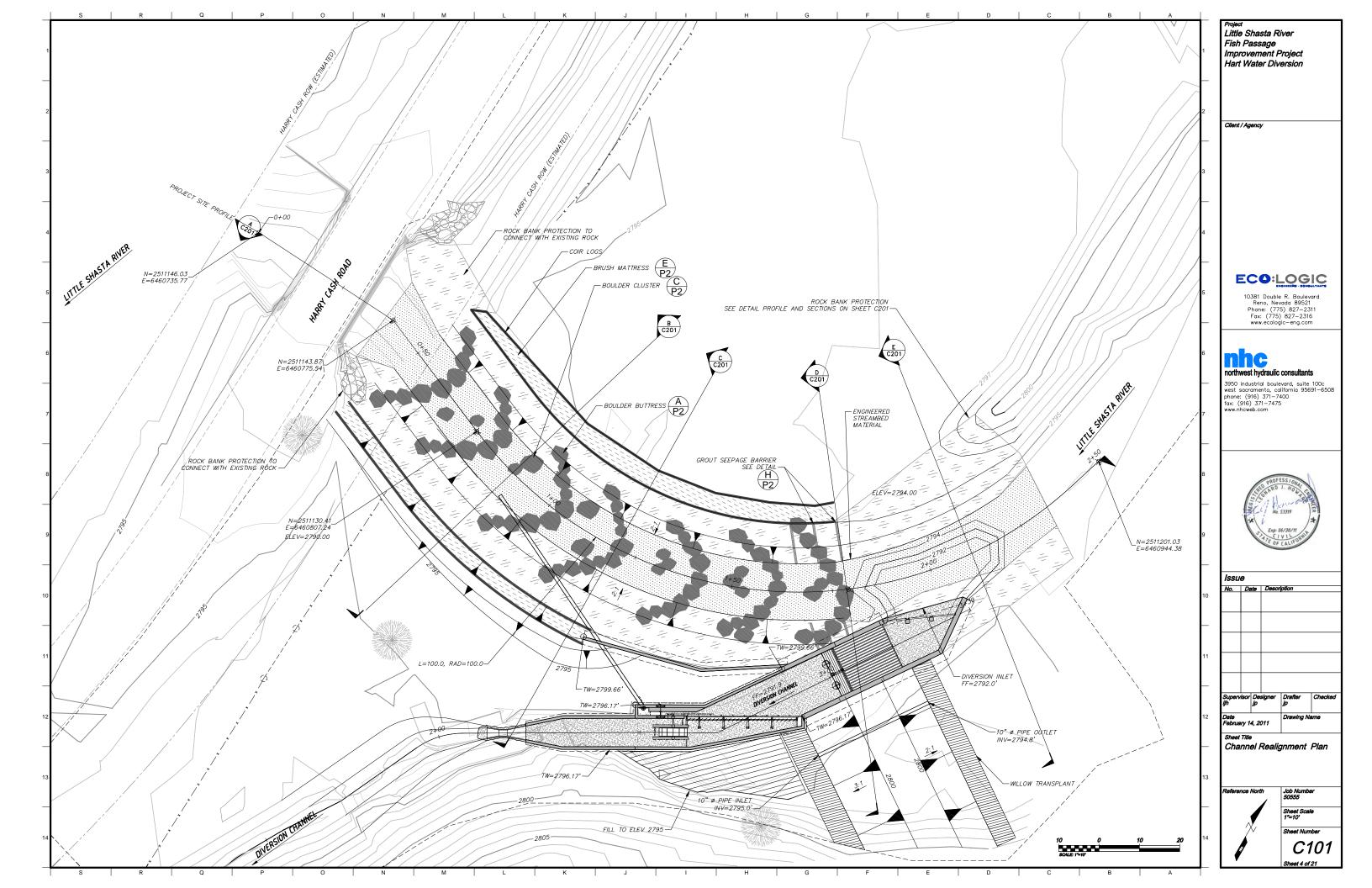
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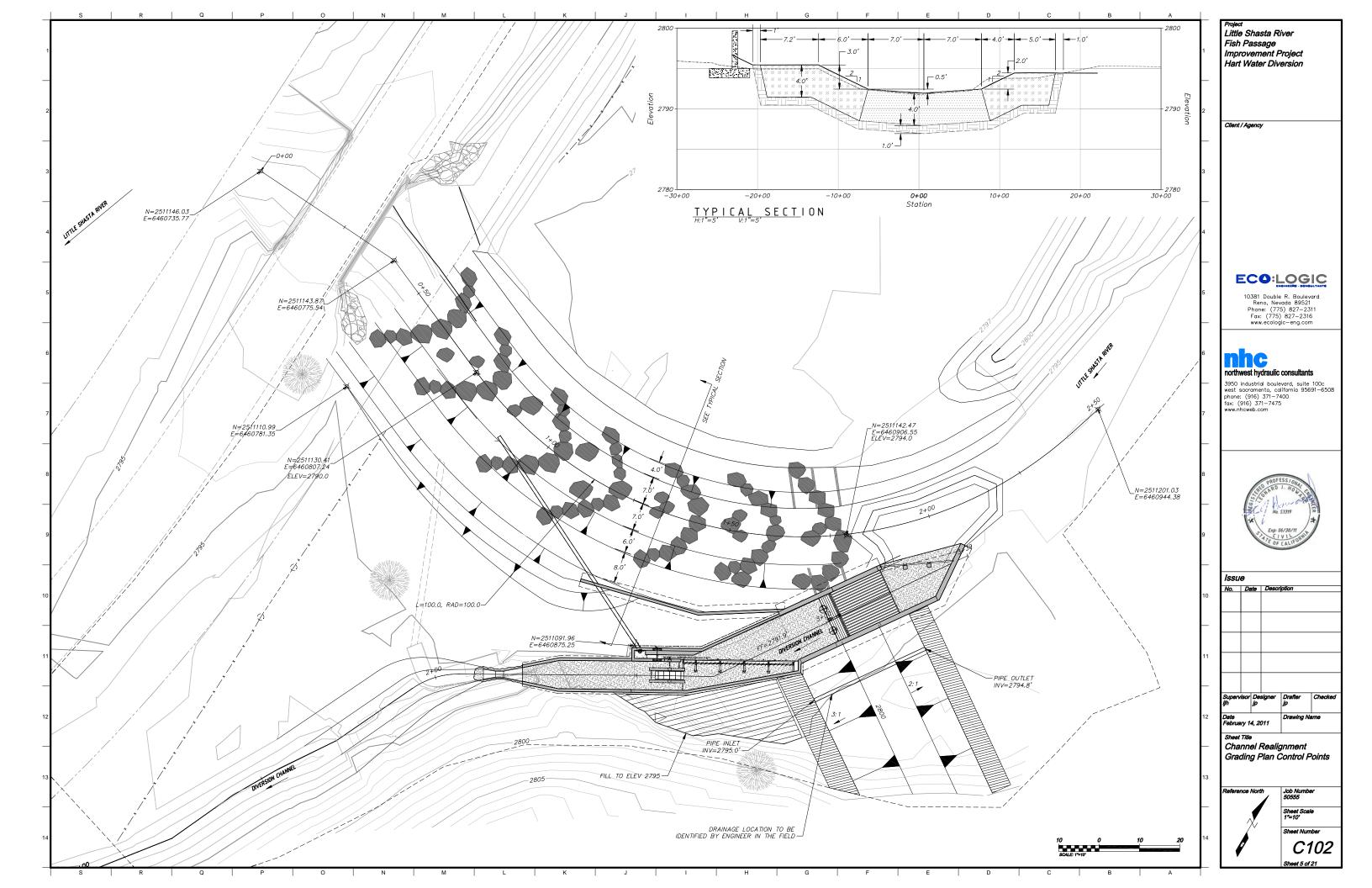
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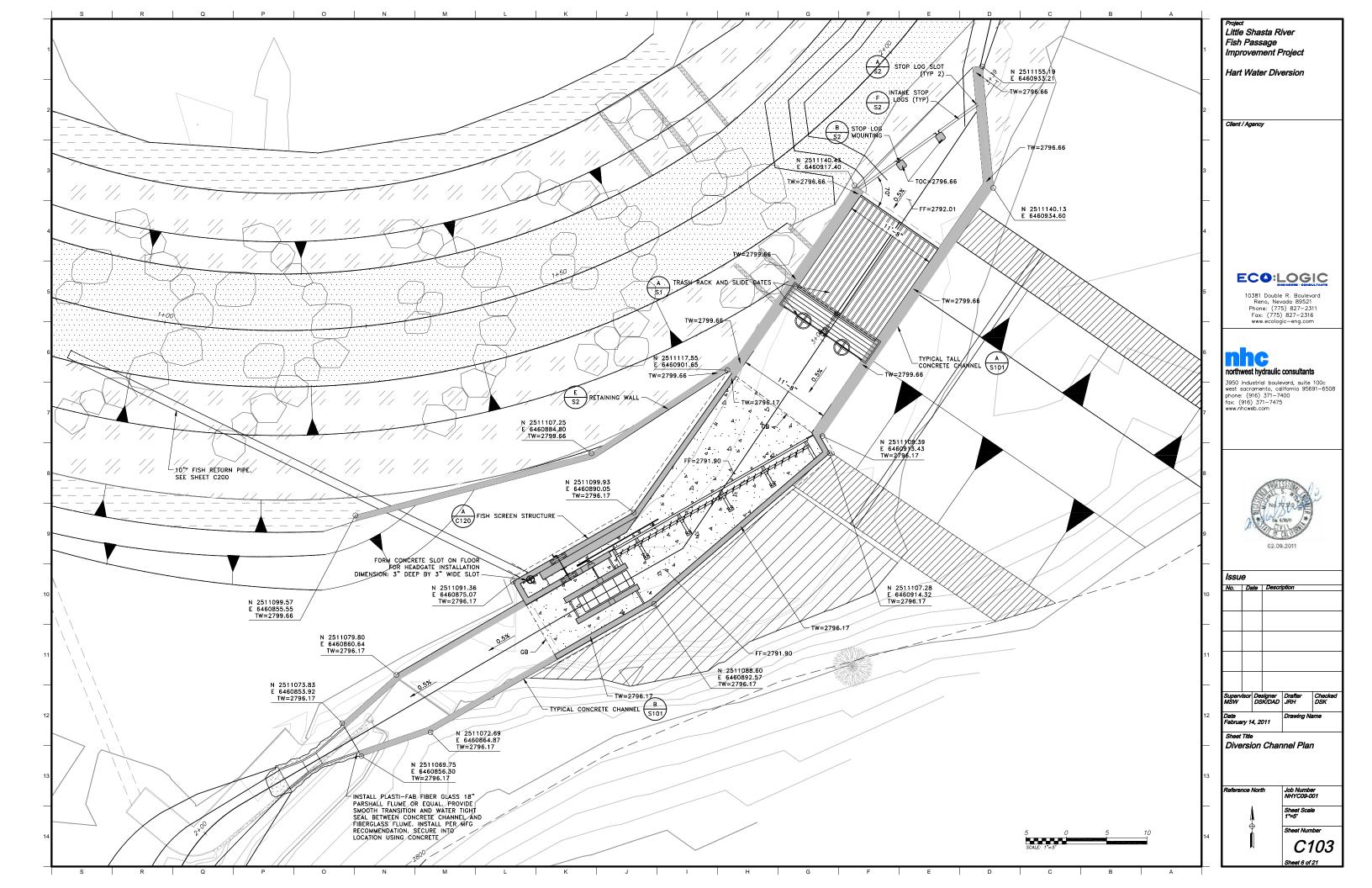
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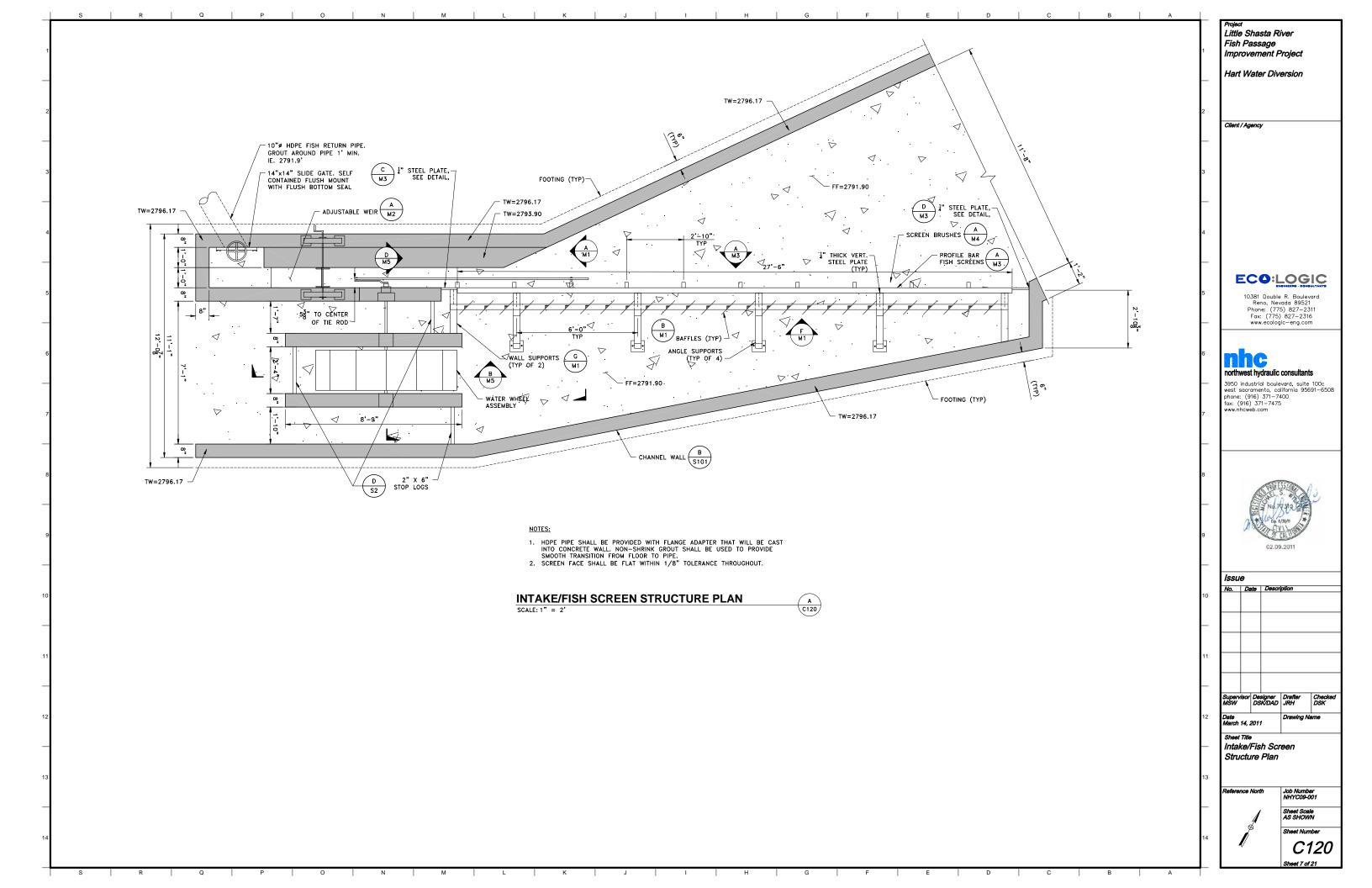
GENERAL NOTES Little Shasta River Fish Passage 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND AVOIDING DAMAGE TO UNDERGROUND UTILITIES. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES AT LEAST 48 HOURS PRIOR TO EXCAVATION. ANY RELOCATIONS OR TEMPORARY OUTAGES SHALL BE COORDINATED WITH THE PROJECT MANAGER. IF UTILITY CONFLICTS ARE IDENTIFIED, THE CONTRACTOR SHALL HALT ALL WORK IN THE AREA AFFECTED BY THE UTILITY CONFLICT AND SHALL IMMEDIATELY NOTIFY THE PROJECT MANAGER. Improvement Project Hart Water Diversion 2 THIS PROJECT IS SUBJECT TO REQUIREMENTS OF PERMITS ISSUED BY VARIOUS REGULATORY AGENCIES. THE CONTRACTOR IS RESPONSIBLE TO UNDERSTAND AND PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMITS. COPIES OF THE PERMITS HAVE BEEN PROVIDED TO THE CONTRACTOR ALONG WITH THESE PLANS AND SPECIAL PROVISIONS. PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT MANAGER TO VERIFY THE MOST RECENT COPY OF ALL APPLICABLE PERMITS ARE INCLUDED IN THE SPECIAL Client / Agency 3. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AN EROSION CONTROL AND POLLUTION PREVENTION PLAN AND STORM WATER POLLUTION PREVENTION PLAN (SWPP) FOR PREVENTION PLAN AND STORM WATER POLLUTION PREVENTION PLAN (SWPP) FOR CONSTRUCTION ACTIVITIES. THIS PLAN MUST BE APPROVED BY THE PROJECT MANAGER PRIOR TO CONSTRUCTION ACTIVITIES COMMENCING FOR THIS PROJECT. THE PLAN SHALL PREVENT SEDIMENT DISCHARGE DOWNSTREAM DURING CONSTRUCTION AND SHALL INCLUDE PROVISIONS FOR MINIMIZING SOURCES OF FINE SEDIMENT TO THE CREEK WHEN REWATERING THE SITE. FISH BARRIER -_ LIMIT_OF WORK SEDIMENT BARRIER SHOWN ILLUSTRATES ISOLATION OF SITE FROM DOWNSTREAM, BUT OTHER METHODS MAY BE PROPOSED BY CONTRACTOR. TEMPORARY DIVERSION PIPE 18" DIA MINIMUM 4. WHEN CONDITIONS IN THE FIELD DO NOT CONFORM WITH INFORMATION IN THESE PLANS AND/OR WHEN UNUSUAL CIRCUMSTANCES ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE PROJECT MANAGER. DIVERSION INTAKE . IN THE EVENT THAT ANY ARCHEOLOGICAL ARTIFACTS ARE UNCOVERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL STOP ALL WORK IMMEDIATELY IN THE AREA AND CONTACT THE PROJECT MANAGER. WORK IN THE AREA SHALL NOT RESUME UNTIL APPROVED BY THE WITH INLET FISH SCREEN-PROJECT MANAGER 6. DURING CONSTRUCTION THE PROJECT MANAGER OR DESIGNATED REPRESENTATIVE MAY MAKE ***** ADJUSTMENTS TO THE DESIGN TO ACCOMMODATE CONDITIONS ENCOUNTERED AT THE SITE. ECO:LOGIC 7. TEMPORARY STREAM DIVERSION WILL BE REQUIRED. SANDBAG/PLASTIC SHEETING DAM AND PIPING SHOWN ILLUSTRATE ONE POTENTIAL METHOD. OTHER METHODS MAY BE PROPOSED FOR APPROVAL BY THE PROJECT MANAGER. CONTRACTOR SHALL SUBMIT A PLAN FOR DEWATERING, INCLUDING MAINTENANCE AND RELOCATION DURING CONSTRUCTION TO ACCOMMODATE GRADING Reno, Nevada 89521 Phone: (775) 827-2311 Fax: (775) 827-2316 www.ecologic-eng.com ACTIVITIES. AT THE COMPLETION OF CONSTRUCTION, ALL MATERIALS USED FOR THE DIVERSION SHALL BE COMPLETELY REMOVED. TEMPORARY DIVERSION DAM-8. PRIOR TO DEWATERING CONTRACTOR WILL COORDINATE WITH PROJECT MANAGER FOR REMOVAL OF SENSITIVE FISH AND AMPHIBIAN SPECIES BY THE CALIFORNIA DEPARTMENT OF FISH AND - ENERGY DISSIPATOR 9. ACCESS TO THE SITE WILL BE FROM HARRY CASH ROAD. CONTRACTOR WILL PROVIDE ANY 1. ALCESS 10 THE SITE WILL BE FROM HARRY CASH ROAD. CONTRACTOR WILL PROVIDE ANY REQUIRED TRAFFIC CONTROL TO FACILITATE SAFE DELIVERY OF CONSTRUCTION MATERIALS TO THE SITE. DELIVERY OF ROCK MAY BE FROM HARRY CASH ROAD. CONTRACTOR WILL COORDINATE WITH PROJECT MANAGER TO IDENTIFY DUMPING AND STORAGE AREAS. MOVEMENT OF ROCK FROM STORAGE AREAS TO THE CHANNEL WILL BE DONE IN A MANNER TO PROTECT EXISTING BANKS THAT ARE NOT PART OF THE WORK. northwest hydraulic consultants 3950 industrial boulevard, suite 100c west sacramento, california 95691–6508 phone: (916) 371–7400 fax: (916) 371–7475 - EXISTING ROCK PROTECTION 10. ADDITIONAL STAGING AND STORAGE AREAS MAY BE COORDINATED WITH THE PROPERTY OWNER FXISTING ABUTMENT AND PROJECT MANAGER 11. EXISTING PRIVATE PROPERTY SHALL BE PROTECTED IN PLACE OR REPAIRED/REPLACED IN KIND TO A CONDITION EQUAL TO OR BETTER THAN PRE-PROJECT CONDITIONS. 12. EXISTING VEGETATION OUTSIDE THE WORK AREA LIMIT IS TO BE PROTECTED. PRIOR TO CONSTRUCTION, PROJECT MANAGER WILL DESIGNATE ADDITIONAL BANK VEGETATION, OUTSIDE THE LIMITS OF EXCAVATION AND GRADING WORK, TO BE PROTECTED WITHIN THE WORK AREA. PRIOR TO GRADING WORK, CONTRACTOR SHALL SALVAGE AND STORE EXISTING VEGETATION CUTTINGS AND WILLOW TRANSPLANTS TO BE REPLANTED. AT THE DIRECTION OF THE PROJECT MANAGER, EXISTING SHRUB ROOTBALLS TO BE REPLANTED. EXISTING ABUTMENT TEMPORARY DIVERSION DAM -NO.57 2797.28/ 7 13. EXISTING TOPOGRAPHY IS BASED ON A SURVEY CONDUCTED IN APRIL AND MAY, 2009 BY NORTHSTATE LAND SURVEYORS AND NORTHWEST HYDRAULIC CONSULTANTS. HORIZONTAL COORDINATES AND ELEVATIONS ARE BASED ON NAVD 1988 VERTICAL DATUM AND NAD 1983. EXISTING ROCK PROTECTION + CONTROL POINTS SET IN THE FIELD ARE LISTED BELOW: POINT # NORTHING EASTING ELEVATION DESCRIPTION 2511075.07 6460814.90 2511080.84 6460917.15 2511107.95 6460770.25 2795.34 2800.07 2797.28 NAIL ON GROUND NAIL ON GROUND NAIL ON GROUND SITE ACCESS THROUGH GATE 2510948.57 6460736.87 2794.35 NAIL ON GROUND 14. THE CONTRACTOR WILL BE RESPONSIBLE FOR FIELD SURVEYING NECESSARY TO LAYOUT THE PROPOSED WORK. THE PROJECT MANAGER WILL PROVIDE CHECKING OF THE WORK AT VARIOUS STAGES. CONTRACTOR SHALL PROTECT CONTROL POINTS IN PLACE OR TRANSFER THE CONTROL TO ADDITIONAL POINTS FOR USE IN CONSTRUCTION. Issue 15. ROCK FOR CONSTRUCTION OF ROUGHENED CHANNEL, ROCK BANK PROTECTION, AND ROCK BUTTRESSES WILL BE IMPORTED, SUPPLEMENTED BY EXISTING ROCK SALVAGED ON SITE. ALL IMPORTED ROCK WILL BE UNIFORMLY SOUND, DURABLE, AND FREE OF CRACKS AND INCLUSIONS. ROCK SHALL BE ANGULAR OR SUB-ANGULAR IN SHAPE, WITH MAXIMUM AXIS DIMENSION NO MORE THAN 3 TIMES THE MINIMUM AXIS DIMENSION. MINIMUM SPECIFIC GRAVITY SHALL BE 2.5. ROCK SOURCES AND OR SAMPLES SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR APPROVAL PRIOR TO CONSTRUCTION. TREES MARKED FOR REMOVAL 16. ROCK PLACEMENT FOR REVETMENT AND ROCK BUTTRESSES SHALL BE PERFORMED BY STAGING AND STORAGE AREA-PLACING INDIVIDUAL ROCKS WITH AT LEAST 3 POINT BEARING ON UNDERLYING ROCKS. PLACING INDIVIDUAL BE MADE TO FORM A STABLE MASS WITH SMALLER ROCKS USED TO MINIMIZE VOID SPACE. BEARING OF LARGER ROCKS SOLELY ON SMALLER ROCKS AND DIVERSION CHANNEL SEE NOTE 10 PLACEMENT BY DUMPING WILL NOT BE PERMITTED. REMOVE EXISTING STRUCTURE Drafter bruary 14, 2011 General Notes, Demolition and Dewatering Plan - FXISTING FENCE Job Numbe Sheet Scale 1"=20' G2

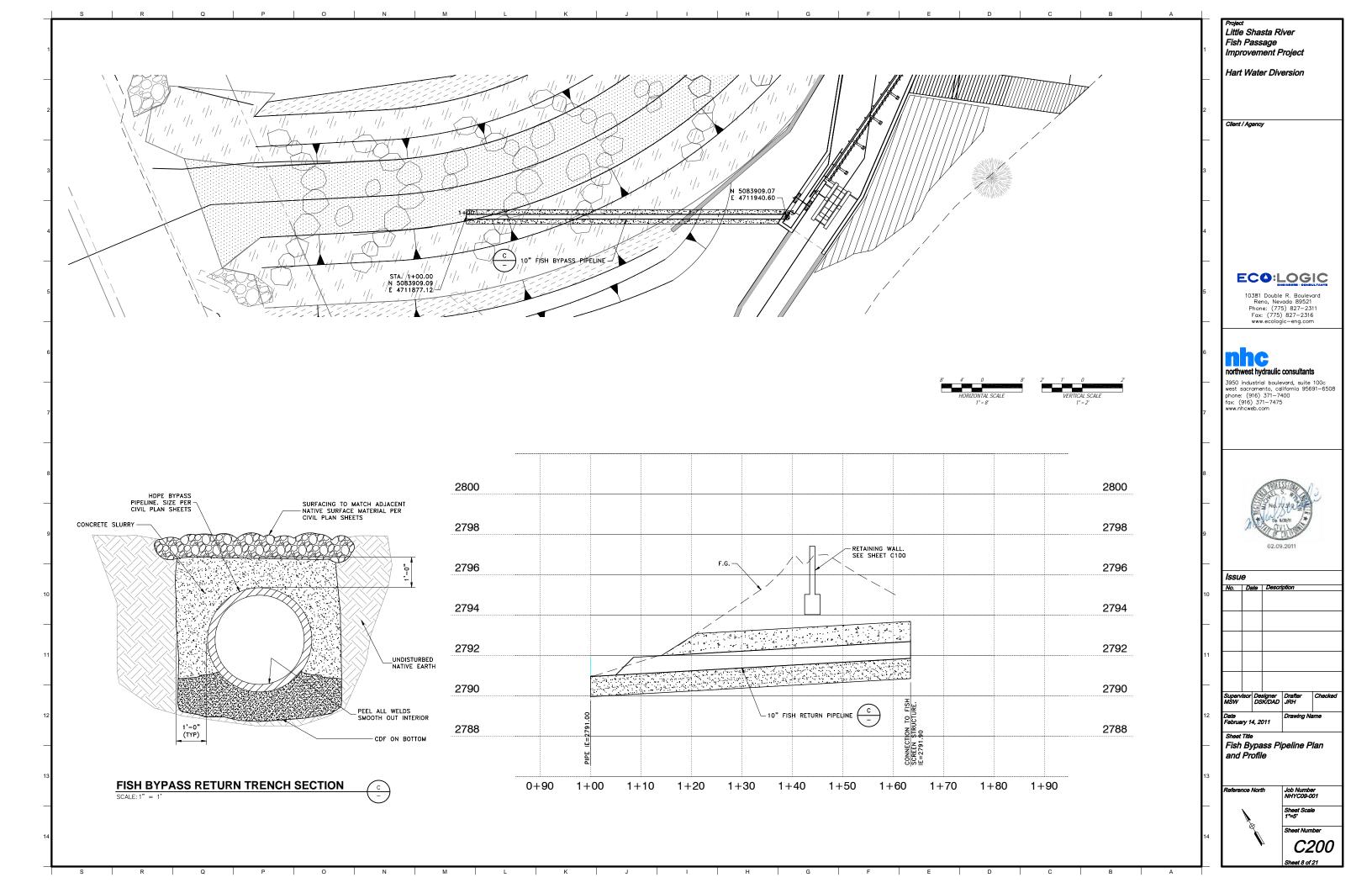


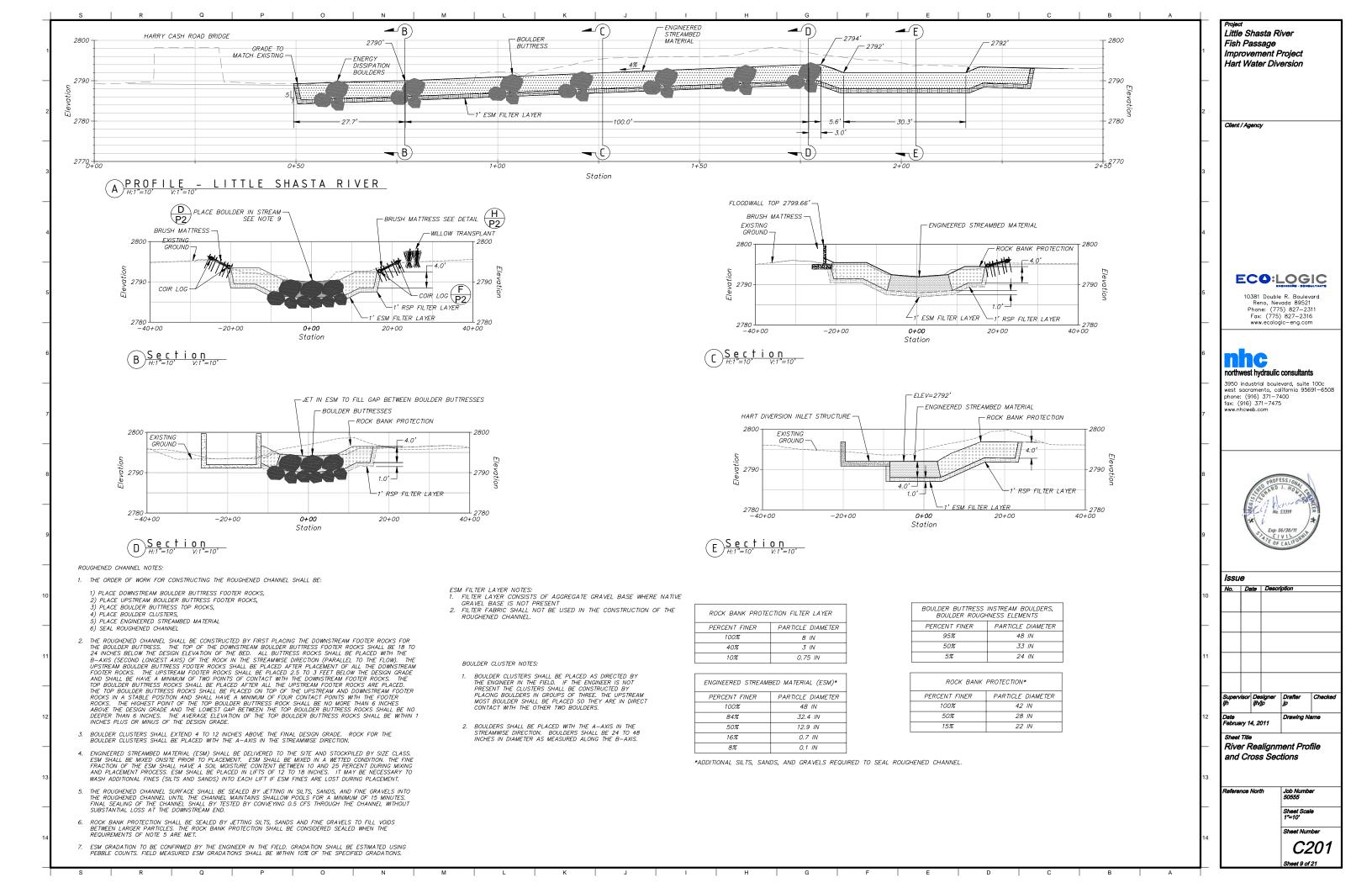


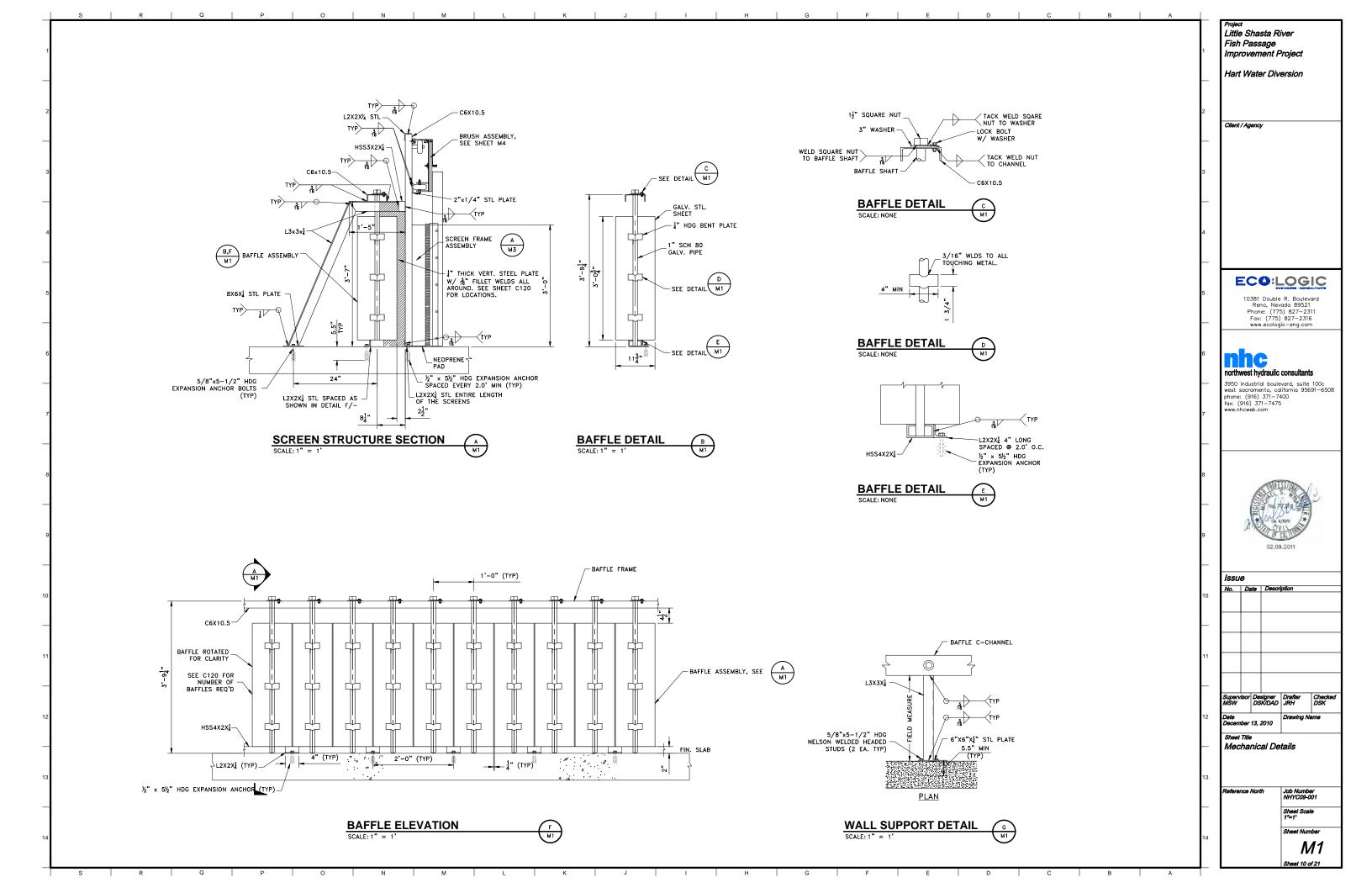


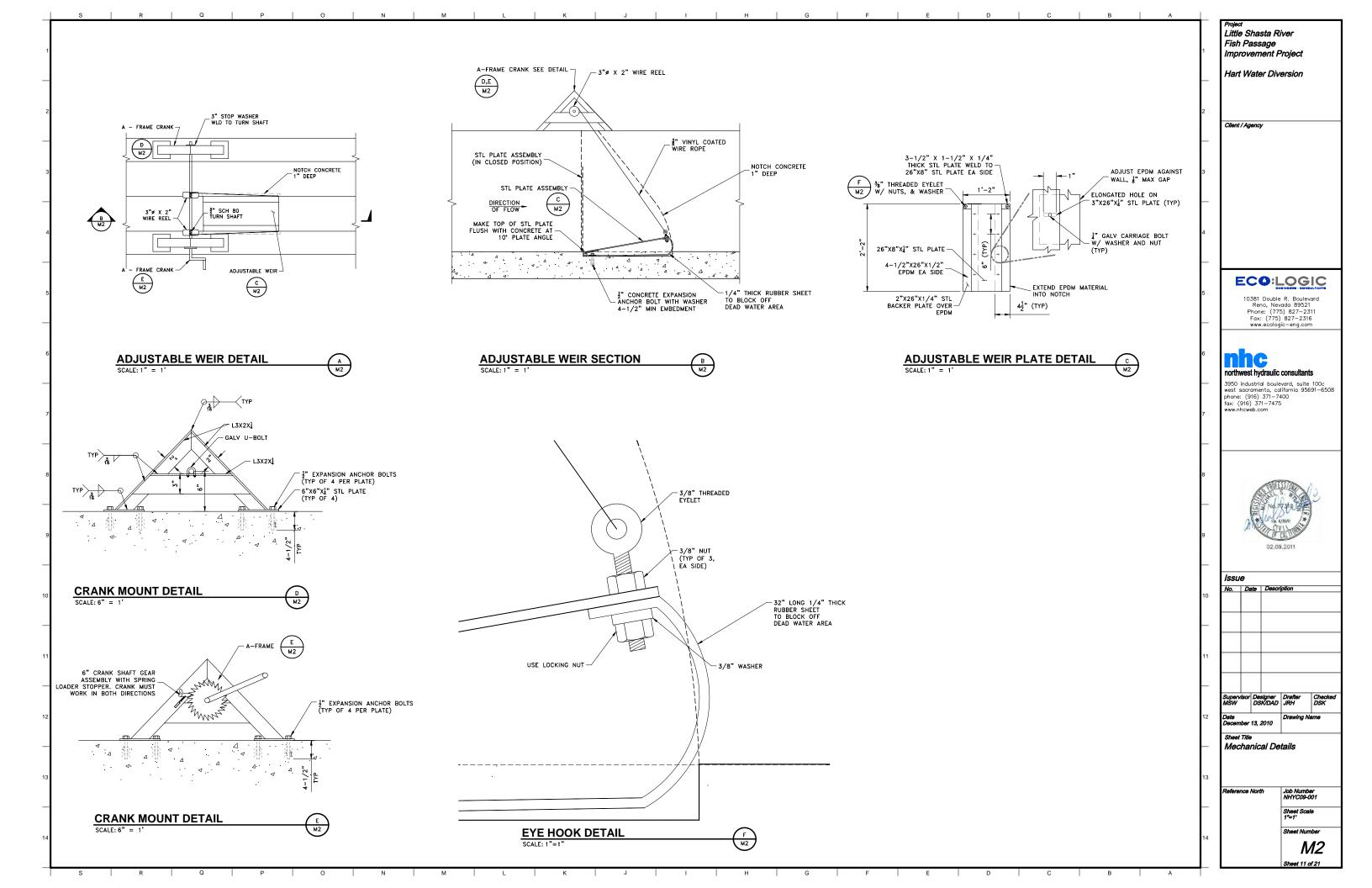


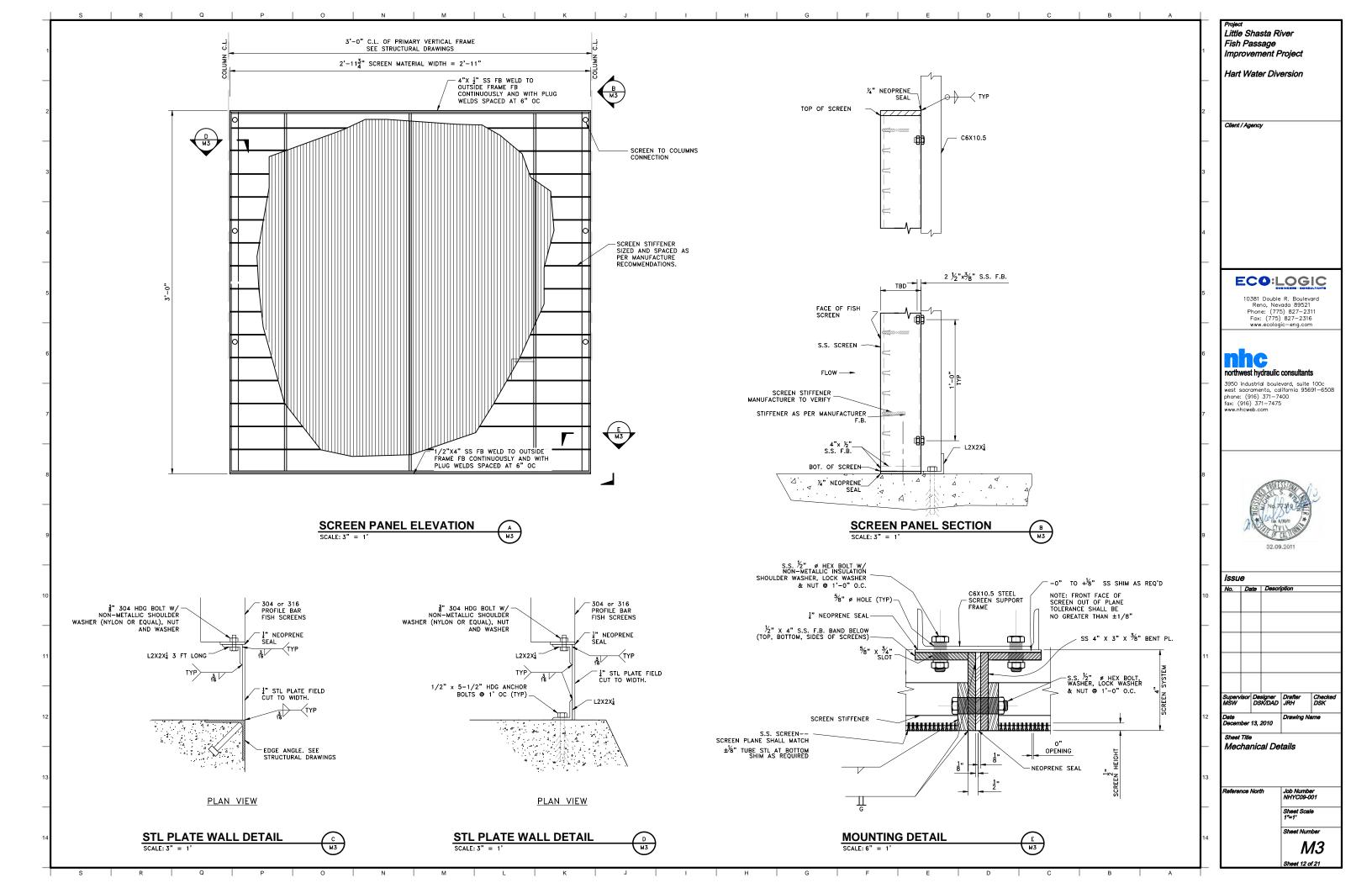


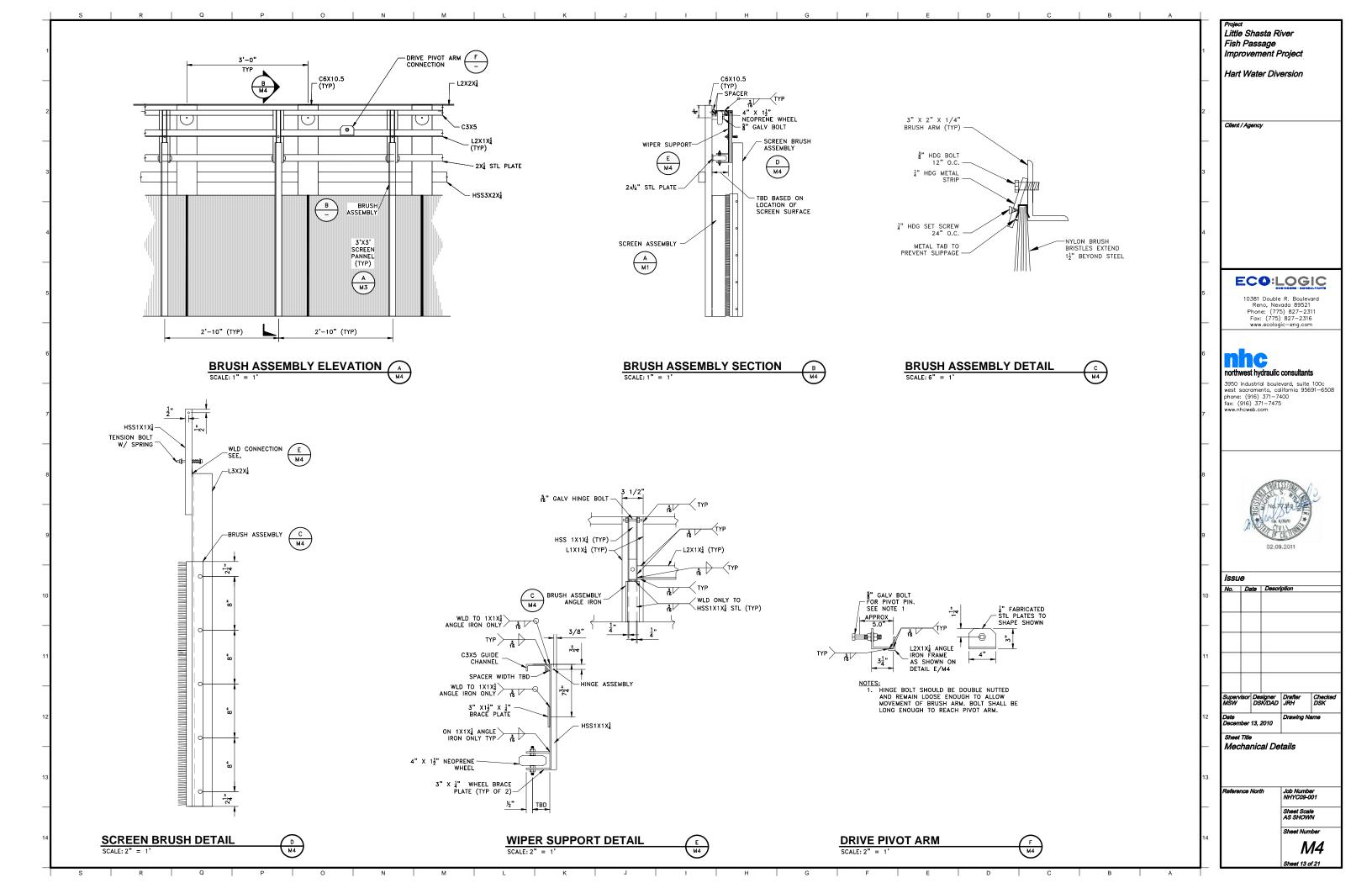


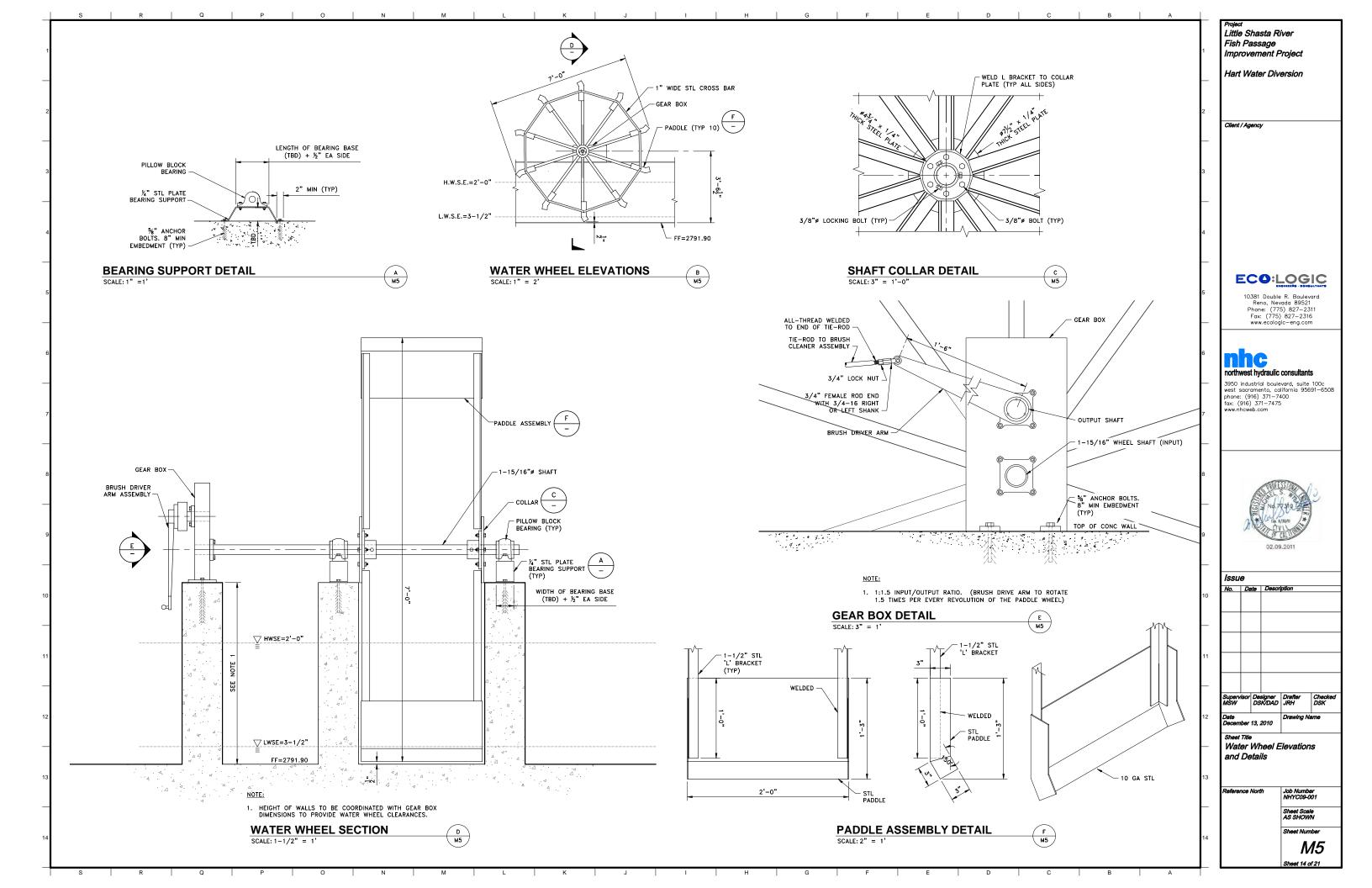


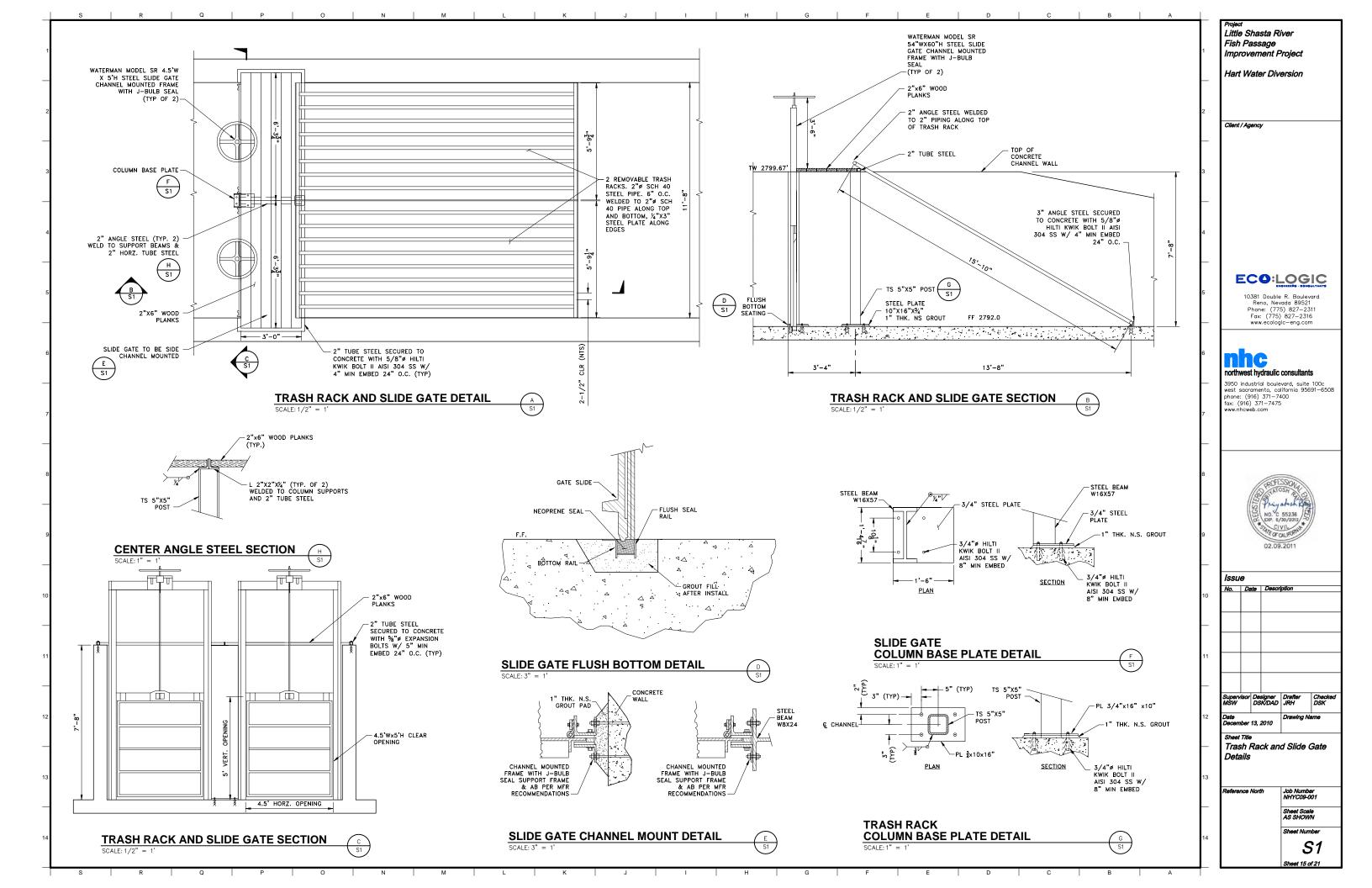


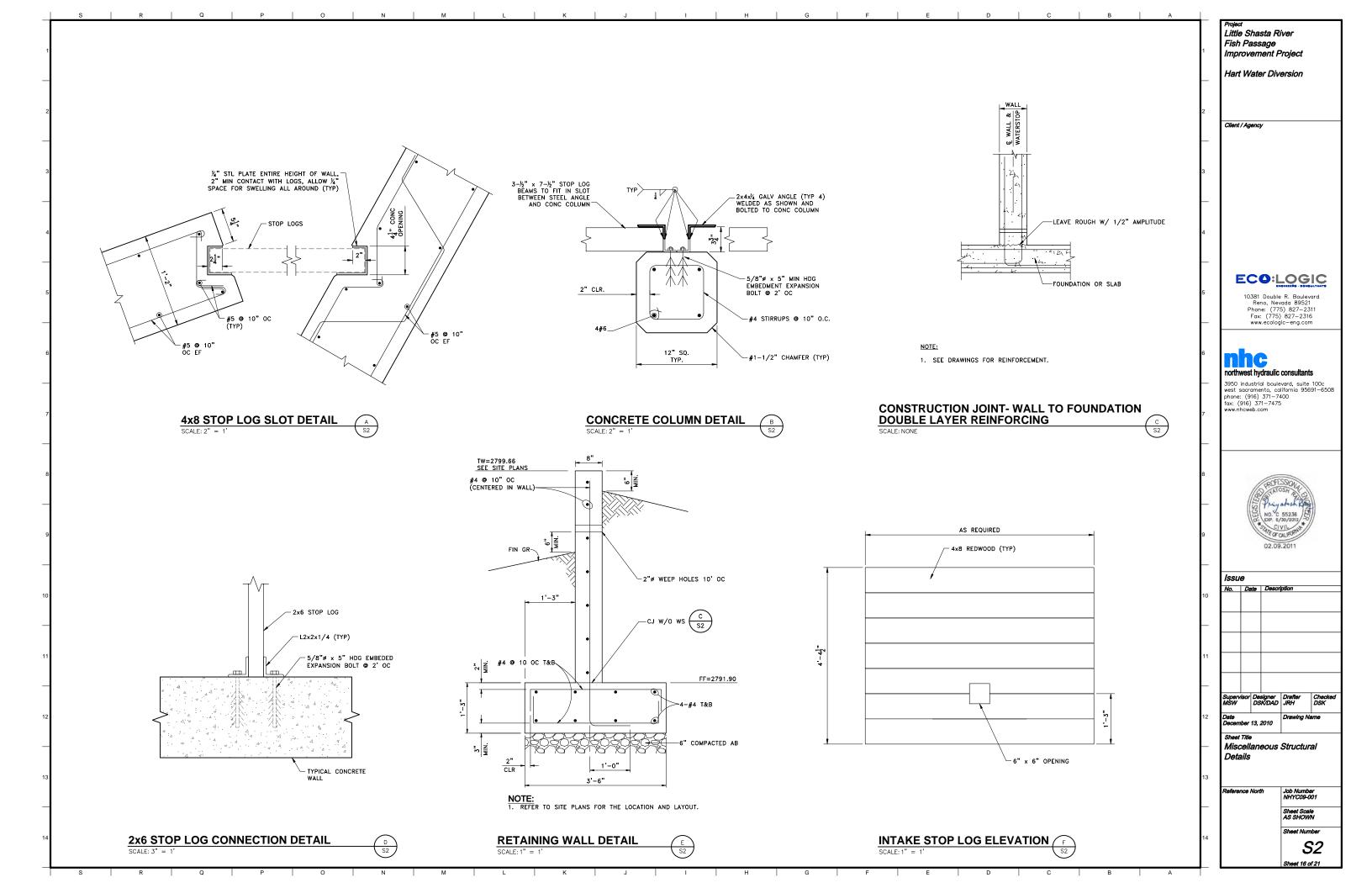


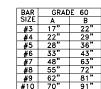










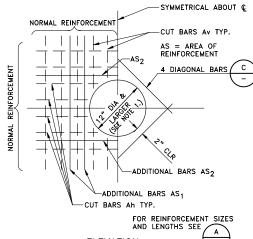


REF: S216, S217

- THIS DETAIL TO BE USED EXCEPT WHEN NOTED OTHERWISE ON STRUCTURAL DRAWINGS.
- 2. NORMAL REINFORCEMENT CUT AT OPENING: $AS_1 = 1/2$ TOTAL AV CUT BARS AS₂ = 1/2 TOTAL Ah CUT BARS TO BE ADDED ON EACH SIDE OF OPENING.
- 3. DIAGONAL BARS TO BE PLACED:
 a) AT @ OF WALL OR SLAB WHERE ONE LAYER
 OF REINFORCEMENT IS PROVIDED.
- b) AT EACH FACE OF WALLS OR SLABS WHERE TWO LAYERS OF REINFORCEMENT ARE PROVIDED.
- 4. PROVIDE DIAGONAL DOWEL FOR EACH LAYER OF REINFORCEMENT (#4 x 3'-0") U.N.O.
- 5. LOCATE ADDITIONAL BARS AT MID SPACING BETWEEN CONTINUOUS BARS THAT ARE NOT CUT.

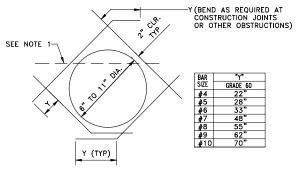
NOTES FOR ADDITIONAL REINFORCEMENT AT OPENINGS

SCALE: NONE



NOTE:
1. FOR CIRCULAR OPENINGS LESS THAN 12"ø, SEE

ADDITIONAL REINFORCEMENT AT CIRCULAR OPENINGS



- 1. CUT TYPICAL REINFORCEMENT AT OPENING.

Little Shasta River Fish Passage Improvement Project

Hart Water Diversion

Client / Agency

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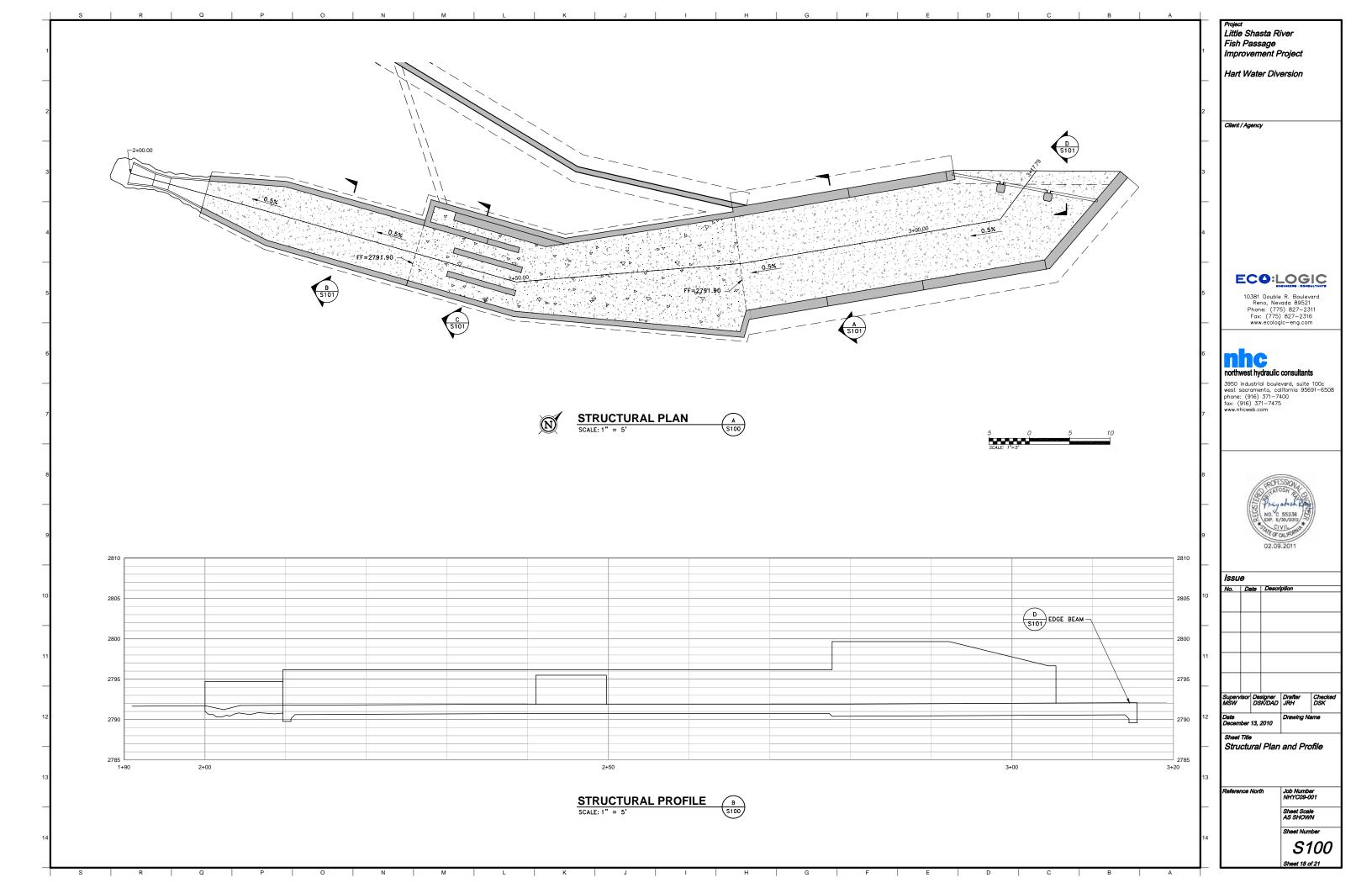
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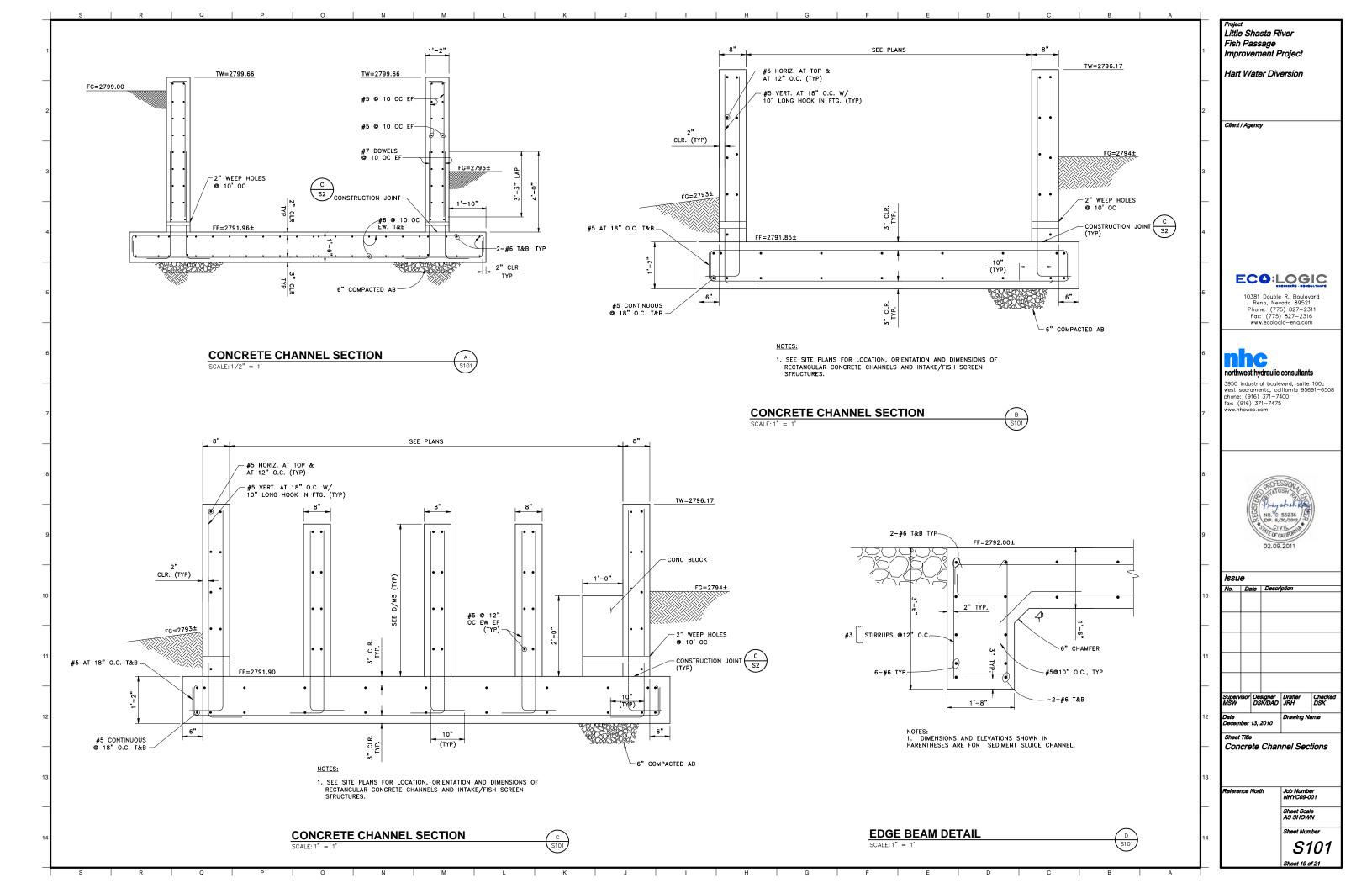
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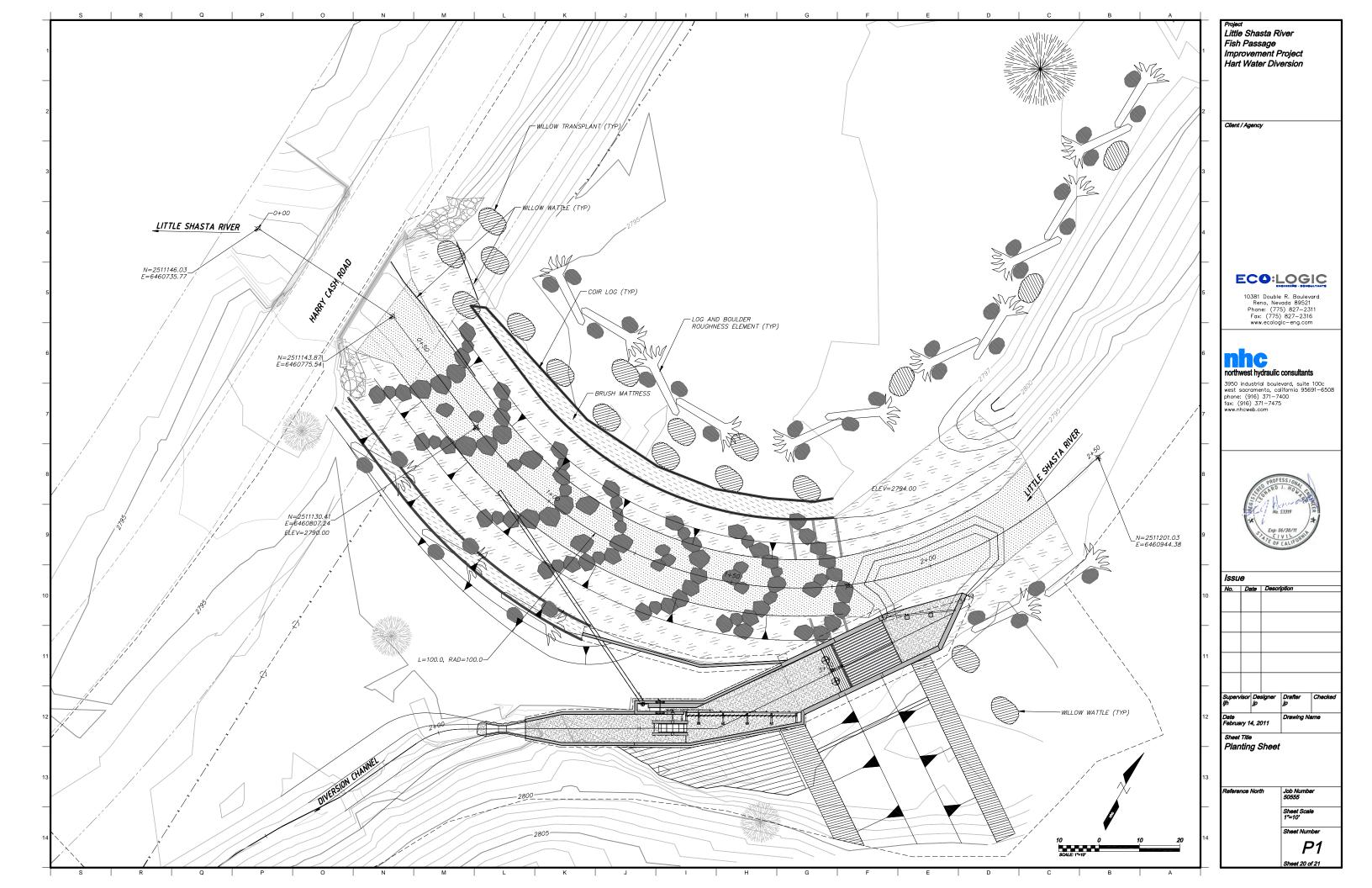
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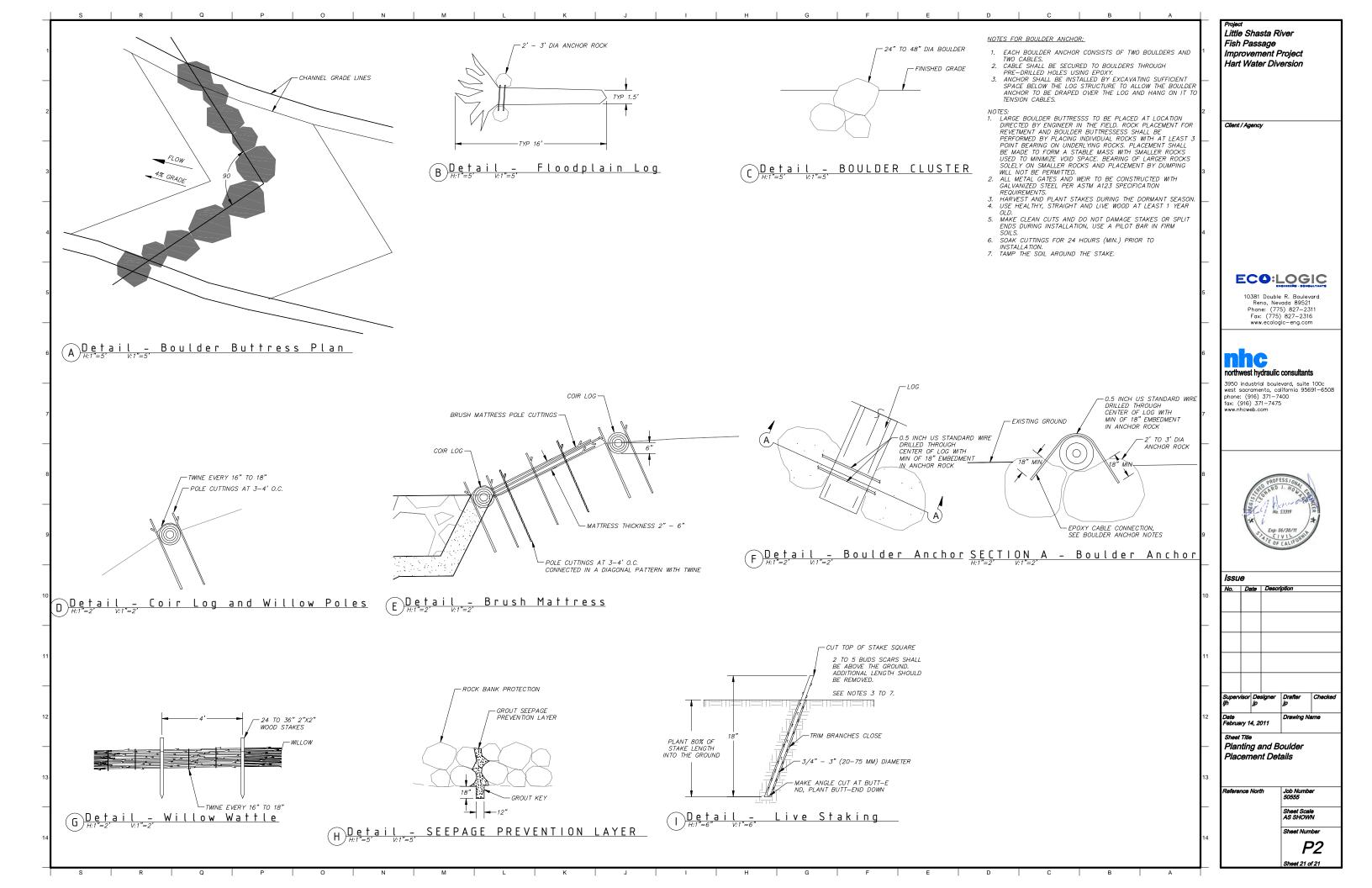
> > Sheet Number *S3*

2. DIAGONAL BARS TO BE PLACED:
a) AT Q OF WALL OR SLAB WHERE ONE LAYER
OF REINFORCEMENT IS PROVIDED. b) AT EACH FACE OF WALLS OR SLABS WHERE TWO LAYERS OF REINFORCEMENT ARE PROVIDED. 3. UNLESS OTHERWISE NOTED, SIZE OF DIAGONAL BARS SHALL BE THE SIZE OF THE LARGEST REINF. CUT. 4. USE THIS DETAIL FOR ALL CIRC. OPENINGS 6" THROUGH 11" U.N.O. ON THE STRUCT. DWGS. **ELEVATION** DIAGONAL REINFORCEMENT AT CIRCULAR OPENINGS SCALE: NONE









APPENDIX E

Biological Resources Report for California Environmental Quality Act (CEQA) Initial Study, Hart Ranch Rabe Consulting October 2016

Biological Resources Report for California Environmental Quality Act (CEQA) Initial Study

Hart Ranch Project

January 12, 2017

Prepared By:	Date:
riepaieu by.	Date.

Andréa Rabe, MS

Senior Environmental Consultant 421 Commercial Street Klamath Falls, Oregon 97601 andrea@rabeconsulting.com (541) 891-2137



Contents

1.	Introduction	3
2.	Description of the Proposed Action	3
3.	Pre-Field Review	5
4.	Field Survey Results	8
5.	Effects of the Proposed Project	10
6.	Determinations	12
7.	References Cited	13
App	endix A – Maps	14
App	endix B – Species Lists	17
Ann	endix C – Protective Measures	. 29

1. Introduction

The purpose of this Biological Report is to review the potential effects of the proposed Hart Ranch Project (Project) as required under the California Environmental Quality Act (CEQA) for potential impacts to biological resources including plants, fish and wildlife species, and/or their associated habitats. The biological resources considered include Federal or State listed Threatened, Endangered, or Candidate species and their critical habitats; riparian habitat; and sensitive native and resident, or migratory, fish or wildlife species.

Hart Ranch is located in Siskiyou County, California in Township 44N, Range 5W, Sections 34, 35, and 36 and Township 45N, Range 5W, Sections 1, 2, and 3. The proposed Hart Ranch Flow Enhancement Project is located within the north central portion of the unincorporated area of Siskiyou County, California. This project will be sited primarily at the Hart Ranch, with one component located upstream at the ranch's existing agricultural irrigation diversion on the Little Shasta River as illustrated in Figure 1, Project Location Map.

The overall project objectives are to (1) enhance flow in the Little Shasta River during critical coho salmon migration periods; (2) ensure long-term operation and maintenance of irrigation infrastructure for the Hart Ranch and the Montague Water Conservation District (MWCD); and (3) improve fish passage in the Little Shasta River.

By improving agricultural water infrastructure, water management opportunities, and fish passage in the Little Shasta River, the project intends to improve water quality and coho salmon habitat in the Little Shasta River with a resultant permanent instream dedication of up to 1.5 cfs and permissive dedication of their remaining 22.7 cfs water right by the Hart Ranch while maintaining viable agricultural lands.

2. Description of the Proposed Action

Current Conditions

The Hart Ranch Project, which consists of 65 acres of the 4,698-acre ranch, is privately owned and is operated primarily for beef cattle production, including extensive irrigation of forage and pasture. The Ranch lies within the Little Shasta River watershed and holds certain rights to Little Shasta River water, which are used with other water entitlements and groundwater for irrigation and livestock watering. All components of this project are located on existing active agricultural lands which are zoned for agricultural use by Siskiyou County.

Currently, Hart Ranch has a point of diversion on the Little Shasta River to deliver priority rights water to the ranch. The point of diversion is located upstream of Hart Ranch's northeastern boundary. Diverted water travels to the ranch through a large diversion ditch, then into a series of irrigation ditches within the ranch property. A portion of the Little Shasta River flows through the northwestern corner of the ranch.

Proposed Action

The Hart Ranch Flow Enhancement Project consists of the following elements, the locations of which are identified in Figure 1. All components are located on the Hart Ranch (41 41' 25.85"N latitude, 122 22' 51.11"W longitude). More details of the proposal can be found in CEQA document.

- 1) Stockwater Improvement: This project component is located on the Hart Ranch along Harry Cash Road south of the Little Shasta River. This component of the project consists of (1) retrofitting of an existing groundwater well a new pump and motor; (2) two new water storage tanks approximately 10,000 gallons in size; (3) installation of approximately 22,556 linear feet of underground PVC pipe connection to 20 stockwater troughs; (4) installation of approximately 7,500 linear feet of riparian grazing management fencing; and (5) riparian planting along the Little Shasta River for a distance of approximately 14,500 linear feet; and (6) approximately 14,850 linear feet of cross fencing in existing pastures.
- 2) Hart Ranch Main Pipeline Replacement: This component of the project includes replacement of the existing main canal earthen ditch and failing pipeline with approximately 7,280 linear feet of underground PVC pipe with risers, valves, flow meter, and connection to existing groundwater wells, for improved water management opportunities and flood irrigation of the eastern portion of the Ranch.
- 3) Montague Water Conservation District Canal Improvements: This component of the project is located along the Montague Water Conservation District (MWCD) main canal which bisects the Hart Ranch. The project's southern terminus is at Hart Road and is along the canal north.
- 4) Fish Passage Improvements: This component of the project includes (1) removal of the existing concrete dam, fish screen and old fish ladder walls along the Little Shasta River; (2) construction of approximately 105 linear feet of roughened channel with large boulder clusters and buttresses at a 2.5 3 percent grade, that provides fish passage opportunities; (3) modification of the agricultural diversion for the Hart Ranch (4) construction of a new cast-in-place concrete diversion structure with fish screen and fish return bypass that meets current NOAA and CDFW fish protection criteria; and (5) revegetation of the site.

Work will be conducted during the low flow period of August 15 to October 15. Stream flows during this period are anticipated to be less than about 3 cfs. Pumps will be used when necessary to remove ground water seepage into the isolated work area. Pumped ground water seepage will be spread over existing floodplain areas and allowed to infiltrate into the ground without causing river turbidity to increase. River flows will be diverted around the roughened channel and diversion structure intake during construction and will be returned to the newly constructed channel as soon as these portions of the work are complete. It is anticipated the project reach will be dewatered for less than 6 weeks. Prior to grading activities, the contractor will salvage and store existing vegetation cuttings and willow transplants to be replanted following project completion.

3. Pre-Field Review

The NOAA Fisheries website was consulted on August 10, 2016, and the U.S. Fish and Wildlife Service website was consulted on August 10, 2016 to identify a list of federally proposed and listed Endangered and Threatened species that may be present or exhibit habitat in the area of the proposed Project. The project is located in Siskiyou County and species identified in the search are listed in Tables 1 and 2 in Appendix B.

The California Department of Fish and Wildlife website and a 7.5′ 9-quadrangle search of the California Natural Diversity Database was conducted on August 8, 2016 for a list of species the State of California has listed as Threatened, Endangered, or Candidate potentially occurring or exhibiting habitat in or around the project site. The project is located primarily in the Little Shasta quadrangle, with a small portion of the eastern extent of the project area occurring in the Solomon's Temple quadrangle, resulting in the need to search 12 quadrangles, not 9. The search included the following 12 7.5′-quadrangles: China Mountain, Gazelle, Hotlum, Juniper Flat, Lake Shastina, Little Shasta, Montague, Solomon's Temple, Grass Lake, Panther Rock, The Whaleback and Weed. All species identified in the search are listed in Tables 1 and 2 in Appendix B.

The U.S. Fish and Wildlife Service website was consulted on August 10, 2016 identified a list of birds protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. This list is found in Table 3 in Appendix B.

Federal or State species that may be present, or potentially have habitat present, in or near the project site are also listed below in an abbreviated table. These species were specifically targeted in the field survey on August 24, 2016.

Scientific Name	Common Name	State Status	Federal Status*	Federal Critical Habitat Present?	California Rare Plant Rank or CDFW Status**	General Habitat Description
Carex atherodes	Wheat sedge	None	None	None	2B.2	Marshes and moist prairie, seasonally wet meadows, pinyon and juniper woodland
Scirpus pendulus	Pendulous bulrush	None	None	None	2B.2	Marshes, wet meadows, ditches
Emys marmorata	Western pond turtle	None	None	None	SSC	Permanent water with basking sites (ponds, ditches, streams)
Rana pretiosa	Oregon spotted frog	None	Threatened	None	None	Wetlands, lakes and slow-moving streams
Oncorhynchus kisutch	coho salmon - southern Oregon / northern California ESU	Threatened	Threatened	Designated	None	Shasta River and tributaries
Oncorhynchus mykiss irideus	steelhead - Klamath Mountains Province DPS	None	Threatened	None	SSC	Shasta River and tributaries
Oncorhynchus tshawytscha	Chinook salmon-upper Klamath and Trinity Rivers ESU	None	None	None	SSC	Shasta River and tributaries
Agelaius tricolor	tricolored blackbird	None	None	No	SSC	Colonial breeder near freshwater, preferably in emergent wetland with tall, dense cattails or tules; also thickets of willow, blackberry, wild rose, tall herbs. Feeds in grass/crop lands.
Buteo swainsoni	Swainson's hawk	Threatened	МВТА	None	None	Open grassland/croplands

						with scattered large
						trees/groves.
Chlidonias niger	black tern	None	None	No	SSC	trees/groves. Loosely colonial breeders; Breeds in freshwater wetlands or dry ground, other abandoned nests (muskrat, coot, grebe); emergent wetland, lakes, ponds, moist grasslands, ag fields; insect and small
Circus cyaneus	Northern harrier	None	None	None	SSC	aquatic prey Nests on ground in shrubby veg, usually at marsh edge. Meadows, grasslands, open rangelands, fresh & saltwater emergent wetlands.
Contopus cooperi	Olive-sided flycatcher	None	МВТА	None	None	Montane & coniferous forests, forest edge meadows/ponds.
Empidonax traillii	Willow flycatcher	None	МВТА	None	None	Moist, shrubby areas near water
Grus canadensis tabida	greater sandhill crane	Threatened	None	None	FP	Wet meadow, emergent wetlands; croplands
Haliaeetus leucocephalus	bald eagle	Endangered	Delisted, BGEPA, MBTA	None	FP	Near large water bodies, rivers with adjacent perches
Lanius Iudovicianus	Loggerhead shrike	None	МВТА	None	None	Open country with spiny shrubs/low trees, ag fields, riparian
Selasphorus rufus	Rufous hummingbird	None	МВТА	None	None	Open shrub or forested areas, mountain meadows.
Stellula calliope	Calliope hummingbird	None	МВТА	None	None	Open montane forest, mountain meadows, willow/alder thickets.

Taxidea taxus	American	None	None	None	SSC	Herbaceous or
	badger					shrub, must have
						friable soils;
						primarily rodent
						prey

^{*}MBTA = Migratory Bird Treaty Act, BGEPA = Bald and Golden Eagle Protection Act

4. Field Survey Results

On August 24, 2016, Andréa Rabe (PWS and Botanist) and Trisha Roninger (Wildlife Biologist) surveyed the project impact area. The project impact area was defined as the project footprint with a 25 ft buffer. The MWCD canal was surveyed with the canal footprint and a 50 ft buffer, from the northern to southern property line of Hart Ranch. The portions of the MWCD canal outside of the Hart Ranch were not surveyed. The survey area at the diversion is 0.16 acres. The survey area within Hart Ranch is 41.5 acres with an additional 4.7 miles of MWCD canal.

Sparse riparian vegetation is present along the irrigation ditches and canals within the proposed project area. The riparian vegetation along the irrigation canals consists of bulrush and cattails along with other sedges and rushes in a narrow band a few inches (1-8 inches) wide along the high water line of the canals. The canal banks are steep and do not allow for a riparian bench. The smaller irrigation ditches exhibit mostly grasses with few sedges and rushes at their ordinary water line.

The Little Shasta River exhibits dense shrub and tree growth in the riparian area, with little to no understory. The shrubs include multiple species of willows.

A 7.5 acre area along the eastern toe of Dorris Hill exhibits bulrush and cattail marsh. This marsh area is wetland seasonally and in large part receives water from the irrigation ditch tailwater. The marsh does not exhibit open water areas. The marsh is about 95% wetland plant cover with 5-10% cover of litter.

The upland area around Dorris Hill and upslope toward the summit exhibit sparse sagebrush scrub with limited bunch grass cover (less than 25%). The area is rocky and exhibits areas of bare soil. The lower elevation areas below the slopes of Dorris Hill are fields are primarily permit pasture exhibiting pasture grasses or alfalfa fields used for hay production. Both of the field types are flood irrigated, but generally do not exhibit wetland features.

Plants

Wheat sedge and pendulus bulrush were not observed nor was habitat present for either species.

Terrestrial Wildlife Species

Pre-field visit data indicates that habitat is potentially present for tricolored blackbirds and black terns. However, upon site visit, it was determined that large galleries of willows or dense blackberry patches

^{**2}B.2 = Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California, SSC = CDFW Species of Special Concern, FP= CDFW Fully Protected

are not present in the study area for nesting tricolored blackbirds, and areas of freshwater wetlands with emergent vegetation are not present in the study area. Therefore, habitat for nesting tricolored blackbirds and black terns is not present in the study area.

American badger, Swainson's hawk, northern harrier, and bald eagle foraging areas are present, but no badger dens, Swainson's hawk, northern harrier, or eagle nests were observed within 660 feet or 0.125 miles of the proposed project site.

The limited size of the riparian areas along the ditches and canals is not typical migratory bird habitat, because it is not large enough to provide adequate cover and/or forage.

There is quality habitat along the Little Shasta River, which was not exhibited along the banks of the ditches and canals, for rufous and calliope hummingbirds, loggerhead shrike, olive-sided flycatcher, and willow flycatcher.

Hart Ranch has breeding habitat for sandhill crane in the wet-open meadows exhibiting bulrush and cattails; approximately 7.5 acres of habitat was identified.

Aquatic Wildlife Species

No Oregon spotted frogs were observed. No slow water or back water areas with breeding habitat components were present in the river adjacent to the proposed fish screen location or in the vicinity of the current diversion. The ditch banks are moderately steep without shelves and do not provide flat areas where breeding frogs can lay eggs. Vegetation along the ditch banks is grazed and there is not adequate thatch to provide surfaces for egg laying to occur. Therefore, the ditches are not breeding habitat.

No basking structures for western pond turtles were observed in the river adjacent to the proposed fish screen location or in the vicinity of the current diversion. The ditches are not habitat as the ditch banks are sloped at greater than 10:1 and do not exhibit basking sites.

Surveys were not conducted for fish; however, the Little Shasta River is known habitat for coho salmon, steelhead and chinook salmon.

Wetlands and Riparian Areas

A wetland delineation was also conducted on August 24, 2016. The delineation identified jurisdictional wetlands. The results of the wetland delineation are documented in the wetland delineation report (a separate document), which includes maps of the wetland areas and data forms.

Riparian vegetation is present along the segments of the Little Shasta River and along some irrigation canals within the proposed project area.

5. Effects of the Proposed Project

After the field review on August 24, 2016, it was determined that the following species have habitat in or immediately adjacent to the proposed project footprint: sandhill crane, rufous hummingbird, calliope hummingbird, loggerhead shrike, olive-sided flycatcher, willow flycatcher, coho salmon, and steelhead.

Rufous and Calliope hummingbirds, loggerhead shrike, olive-sided flycatcher, and willow flycatcher are dependent upon riparian vegetation such as alders and willows. Riparian vegetation will be affected by the proposed project; however, these effects will be short-term in nature and will only occur within the project footprint. Riparian vegetation is available immediately adjacent to the project site. As mitigation, prior to grading activities, the contractor will salvage and store existing vegetation cuttings and willow transplants to be replanted following the project completion. The project will not create any obstructions to flight patterns. Therefore, any short-term impacts to listed riparian-dependent species are less than significant with incorporation of all of the relevant protection measures.

Approximately 7.5 acres of sandhill crane nesting habitat is present within the project area on Hart Ranch and identified on Figure 2. The field visit was not conducted during the time of year when cranes would be nesting; however, given that the habitat is available, it is assumed it will be occupied during the nesting season. Nesting habitat will not be affected by the project; however, activities are scheduled to occur immediately adjacent to the habitat and could result in disturbance to the nesting individuals. A seasonal limited operating period will be placed on construction activities within 500 feet of the nesting habitat on Figure 2 from March 1 to June 30; therefore, no construction activities will occur during this window of time in this area, minimizing disturbance to nesting cranes. Any short-term impacts to sandhill cranes are less than significant with incorporation of the limited operating period.

Oregon spotted frog breeding habitat is not present in the ditches on Hart Ranch or at the point of diversion on the Little Shasta River. Ditches may be used for dispersal movements by frogs when the ditches are in use and full of water. However, short-duration construction work will not occur in the ditches when they are full, as construction will occur in or crossing the ditches outside of the irrigation season when the ditches are dewatered. The proposed action will change the timing of the water delivery in the future, but will not directly impact frog habitat; therefore, impacts to the Oregon spotted frog are less than significant.

Coho salmon (southern Oregon / northern California ESU), steelhead (Klamath Mountains Province DPS) and chinook salmon (upper Klamath and Trinity Rivers ESU) are present in the Little Shasta River. Any impacts to fish habitat are temporary and of short duration, and will have long-term benefits to fish habitat. This component of the project includes (1) removal of the existing concrete dam, fish screen and old fish ladder walls along the Little Shasta River; (2) construction of approximately 105 linear feet of roughened channel with large boulder clusters and buttresses at a 2.5 - 3 percent grade, that provides fish passage opportunities; (3) modification of the agricultural diversion for the Hart Ranch (4) construction of a new cast-in-place concrete diversion structure with fish screen and fish return bypass that meets current NOAA and CDFW fish protection criteria; and (5) revegetation of the site.

All potential impacts to federally listed coho salmon and steelhead from moving the fish screen, piping the ditches, and installing new headgates and flow meters were consulted upon and addressed in the 2012 Biological Opinion issued by NOAA Fisheries pertaining to future U.S. Army Corps of Engineers permits within the Siskiyou and other northern California counties. All relevant protection measures identified in the Biological Opinion (NOAA Fisheries 2012) will be implemented to minimize impacts to listed fish species and their habitat to minimize impacts to listed fish and will be insignificant. A complete list of these protective measures can be found in Appendix C. The general construction season for instream work will be during the low flow period of August 15 to October 15 outside of spawning, incubation, and rearing periods of listed fish. Restoration, construction, fish relocation, and dewatering activities within any wetted or flowing stream channel will occur within this period. Therefore, any short-term impacts associated with construction to listed fish species are less than significant with incorporation of all of the relevant protection measures and have a long-term benefit to the species.

Any potential impacts to jurisdictional wetlands permitted through a Section 404 permit from the Army Corps of Engineers will be temporary and restored to pre-project conditions. Temporary wetland impacts are discussed in the wetland delineation report (a separate document).

6. Determinations

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated		No Impact
IV. BIOLOGICAL RESOURCES: Would the project: a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		×		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			Х	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				Χ
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				Х

7. References Cited

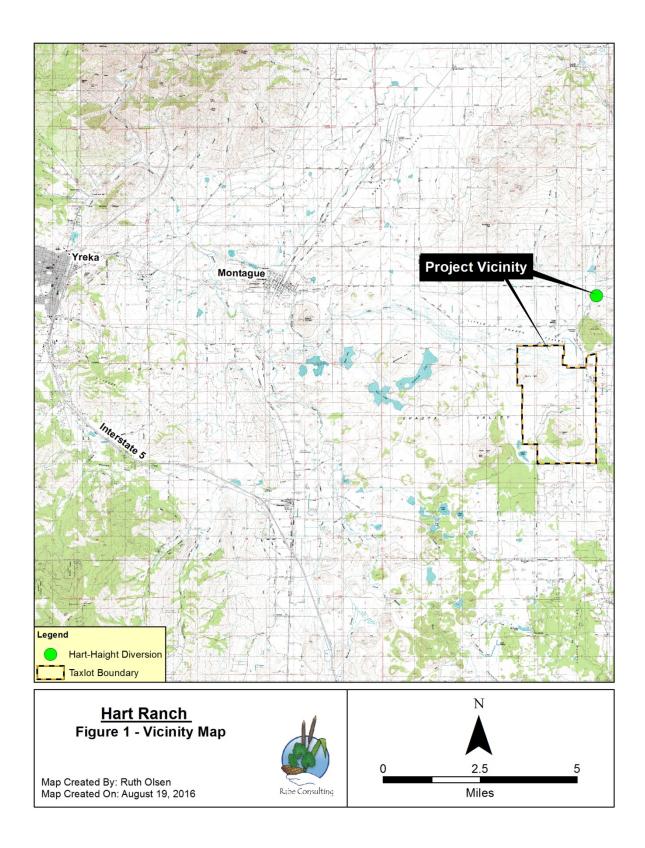
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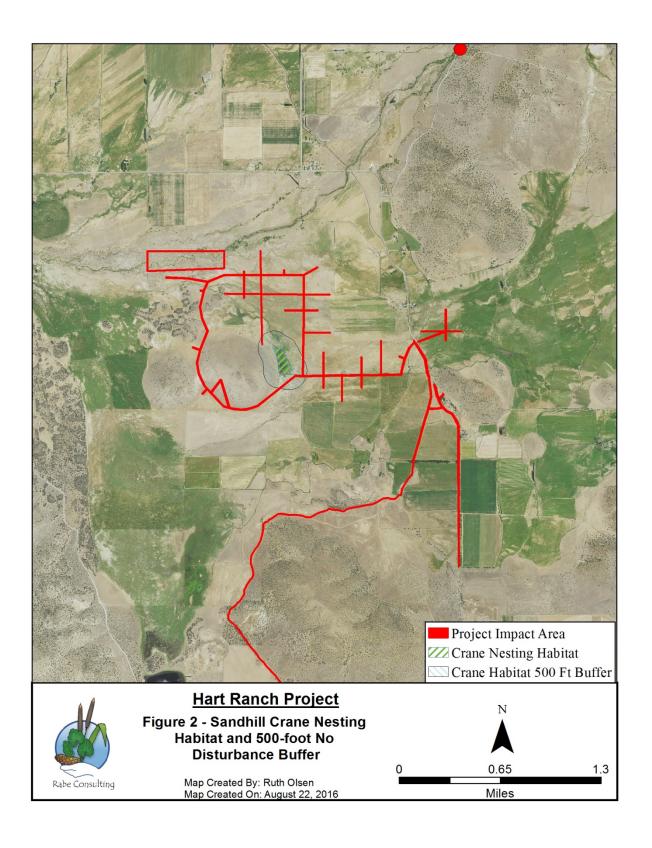
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NOAA Fisheries. 2016. Website was consulted on August 10, 2016. http://www.nmfs.noaa.gov/pr/species/esa/listed.htm

U.S. Fish and Wildlife Service. 2016. IPaC website was accessed on August 10, 2016. https://ecos.fws.gov/ipac/

Appendix A - Maps





Appendix B - Species Lists

Scientific Name	Common Name	State Status	Federal Status	Federal Critical Habitat Present?	California Rare Plant Rank*	General Habitat Description	Habitat Potentially Present?	Species Presence Known?
Fritillaria gentneri	Gentner's fritillary	None	Endangered	None designated	None	Open oak or madrone woodland, chaparral/grassland habitat	No	No
Chamaesyce hooveri	Hoover's spurge	None	Threatened	No	None	Vernal pools	No	No
Orcuttia tenuis	slender orcutt grass	None	Threatened	No	None	Vernal pools	No	No
Phlox hirsuta	Yreka phlox	Endangered	Endangered	None designated	1B.2	Serpentine talus, montane conifer	No	No
Alisma gramineum	grass alisma	None	None	None	2B.2	Fresh or brackish marshes and swamps, vernal pools	No	No
Allium siskiyouense	Siskiyou onion	None	None	None	4.3	Serpentine and rocky soils; lower- and upper montane coniferous forest	No	No
Androsace filiformis	slender- stemmed androsace	None	None	None	2B.3	Upper montane coniferous forest, meadows and seeps	No	No
Anthoxanthum nitens ssp. nitens	nodding vanilla-grass	None	None	None	2B.3	Wet meadows, seeps	No	No
Balsamorhiza lanata	woolly balsamroot	None	None	None	1B.2	Foothill (Cismontane) woodland; Open woods with grassy slopes, full sun, rocky, volcanic; blooms M12M51Apr-Jun.	No	No

Betula glandulosa	dwarf resin birch	None	None	None	2B.2	High altitude streams, meadow edges and in shrublands.	No	No
Calochortus greenei	Greene's mariposa-lily	None	None	None	1B.2	Volcanic; cismontane woodland, meadows and seeps, pinyon and juniper woodland, upper montane coniferous forest	No	No
Calochortus monanthus	single- flowered mariposa-lily	None	None	None	1A	Meadows and seeps; presumed extinct. Single specimen found on the banks of the Shasta River near Yreka	No	No
Campanula scabrella	rough harebell	None	None	None	4.3	Bare talus slopes	No	No
Carex atherodes	wheat sedge	None	None	None	2B.2	Marshes and moist prairie, seasonally wet meadows, pinyon and juniper woodland	Yes	No
Carex geyeri	Geyer's sedge	None	None	None	4.2	Mountain meadows, grasslands, open forest slopes	No	No
Carex klamathensis	Klamath sedge	None	None	None	1B.2	Serpentine soil; fens or other wet habitats	No	No
Chaenactis suffrutescens	Shasta chaenactis	None	None	None	1B.3	Grows in coniferous forests, sometimes on serpentine soils.	No	No
Collomia tracyi	Tracy's collomia	None	None	None	4.3	Rocky, sometimes serpentite, broad-leafed upland forest, lower montane coniferous forest	No	No
Cordylanthus tenuis ssp. pallescens	pallid bird's- beak	None	None	None	1B.2	Open volcanic alluvium	No	No
Cuscuta jepsonii	Jepson's dodder	None	None	None	1B.2	Parasitic on ceanothus diversifolius and c. prostratus which grow in oak-conifer forests, open flats, volcanic soils.	No	No
Cypripedium californicum	California lady's-slipper	None	None	None	4.2	Margins of woodland streams in mixed-evergreen or conifer forest	No	No

Cypripedium fasciculatum	clustered lady's-slipper	None	None	None	4.2	Serpentine seeps/streambanks, lower montane and north coast coniferous forests	No	No
Cypripedium montanum	mountain lady's-slipper	None	None	None	4.2	Broad-leafed upland forest, cismontane woodland, lower montane and north coast coniferous forests	No	No
Darlingtonia californica	California pitcherplant	None	None	None	4.2	Mesic, serpentite seeps; bogs and fens, meadows and seeps	No	No
Draba carnosula	Mt. Eddy draba	None	None	None	1B.3	Serpentine outcrops	No	No
Epilobium luteum	yellow willowherb	None	None	None	2B.3	Lower montane coniferous forest, moist streambanks, montane meadows	No	No
Erigeron bloomeri var. nudatus	Waldo daisy	None	None	None	2B.3	Tends to grow on rocky slopes, lava beds, meadows, 2000'-7500' elevation	No	No
Erigeron nivalis	snow fleabane daisy	None	None	None	2B.3	Rocky sites and meadows in open woods and subalpine areas.	No	No
Erigeron petrophilus var. viscidulus	Klamath rock daisy	None	None	None	4.3	Rocky foothills to montane forests, sometimes on serpentine soils	No	No
Eriogonum congdonii	Congdon's buckwheat	None	None	None	4.3	Lower montane coniferous forest, serpentine soils	No	No
Eriogonum siskiyouense	Siskiyou buckwheat	None	None	None	4.3	Lower montane coniferous forest, often serpentine soils	No	No
Eriogonum strictum var. greenei	Greene's buckwheat	None	None	None	4.3	Lower montane coniferous forest, serpentine soils	No	No
Eriogonum umbellatum var. humistratum	Mt. Eddy buckwheat	None	None	None	4.3	Rocky, usually serpentine, alpine boulder field, chaparral, meadows and seeps, upper montane coniferous forest	No	No

Erythronium revolutum	coast fawn lily	None	None	None	2B.2	Coastal; streambanks, bogs, wet forest understory	No	No
Eurybia merita	subalpine aster	None	None	-	2B.3	Dry, open areas at subalpine levels	No	No
Galium serpenticum ssp. scotticum	Scott Mountain bedstraw	None	None	-	1B.2	Lower montane coniferous forest, serpentine soils	No	No
Helianthus exilis	serpentine sunflower	None	None	-	4.2	Gravelly streamsides, often on serpentine soils	No	No
Helodium blandowii	Blandow's bog moss	None	None	-	2B.3	Subalpine coniferous forest; meadows and seeps	No	No
Hesperocyparis bakeri	Baker cypress	None	None	-	4.2	Serpentine or volcanic, chaparral, lower montane coniferous forest	No	No
Hulsea nana	little hulsea	None	None	-	2B.3	Volcanic talus	No	No
Hymenoxys lemmonii	alkali hymenoxys	None	None	-	2B.2	Great basin scrub and lower montane coniferous forest; meadows and seeps (subalkaline)	No	No
Iliamna bakeri	Baker's globe mallow	None	None	-	4.2	Volcanic; mountain slopes, juniper woodland, lava beds	No	No
lvesia pickeringii	Pickering's ivesia	None	None	-	1B.2	Mesic, clay, usually serpentite seeps. Lower montane coniferous forest meadows and seeps	No	No
Limnanthes floccosa ssp. floccosa	woolly meadow- foam	None	None	-	4.2	Vernally mesic; chaparral, cismontane woodland, valley and foothill grassland, vernal pool edges	No	No
Lomatium engelmannii	Engelmann's lomatium	None	None	-	4.3	Serpentine soils;	No	No
Lomatium peckianum	Peck's Iomatium	None	None	-	2B.2	Pine-oak woodlands	No	No
Meesia triquetra	three-ranked hump moss	None	None	-	4.2	Subalpine coniferous forest, upper montane coniferous forest; meadows and seeps, bogs, fens	No	No

Meesia uliginosa	broad-nerved hump moss	None	None	-	2B.2	Subalpine coniferous forest, upper montane coniferous forest; meadows and seeps, bogs, fens	No	No
Minuartia stolonifera	Scott Mountain sandwort	None	None	-	1B.3	Serpentine soils, Jeffery-pine forest	No	No
Opuntia fragilis	brittle prickly-pear	None	None	-	2B.1	Juniper woodland	No	No
Orthocarpus pachystachyus	Shasta orthocarpus	None	None	-	1B.1	Sagebrush scrub, meadows and seeps, valley and foothill grasslands; blooms in May	No	No
Penstemon cinicola	ashy-gray beardtongue	None	None	-	4.3	Volcanic, lower- and upper montane coniferous forest, meadows and seeps	No	No
Penstemon heterodoxus var. shastensis	Shasta beardtongue	None	None	-	4.3	Volcanic, clay loam; broad-leafed upland forest, chaparral, lower-and upper montane coniferous forest, meadows and seeps	No	No
Phacelia cookei	Cooke's phacelia	None	None	-	1B.1	Forest and scrub, sandy, ashy volcanic soil	No	No
Phacelia greenei	Scott Valley phacelia	None	None	-	1B.2	Serpentine soils, coniferous forest	No	No
Phacelia sericea var. ciliosa	blue alpine phacelia	None	None	-	2B.3	Great basin scrub and upper montane coniferous forest	No	No
Phlox hirsuta	Yreka phlox	Endangered	Endangered	-	1B.2	Upper and lower montane coniferous forest; serpentine, talus	No	No
Polemonium carneum	Oregon polemonium	None	None	-	2B.2	Coastal; lower montane coniferous forest	No	No
Polemonium pulcherrimum var. shastense	Mt. Shasta sky pilot	None	None	-	1B.2	Alpine boulder, subalpine- and upper montane coniferous forest	No	No
Potentilla newberryi	Newberry's cinquefoil	None	None	-	2B.3	Marshes and swamps, vernal pools	No	No

Ribes	western	None	None	-	2B.3	moist, wooded areas, mountain	No	No
hudsonianum	black currant					streambanks, swamp thickets		
var. petiolare								
Scirpus	pendulous	None	None	-	2B.2	Marshes, wet meadows, ditches	Yes	No
pendulus	bulrush							
Sedum	Cascade	None	None	-	2B.3	Gravelly flats, slopes, lava beds	No	No
divergens	stonecrop							
Sedum laxum	pale yellow	None	None	-	4.3	Gravelly flats, rocky outcrops,	No	No
ssp. flavidum	stonecrop					elevations 2600'-6600'		
Shepherdia	Canadian	None	None	-	2B.1	Streambanks, slopes, upper	No	No
canadensis	buffalo-berry					montane conifer forest		
Thelypodium	short-podded	None	None	-	4.2	Alkaline wetland and serpentine	No	No
brachycarpum	thelypodium					soils		
Trifolium	Siskiyou	None	None	-	1B.1	Wet mountain meadows	No	No
siskiyouense	clover							
Triteleia	large-	None	None	-	2B.1	Grassland, sagebrush, pine forests	No	No
grandiflora	flowered							
	triteleia							

Note: California State listed species are identified from California Natural Diversity Database. The project is located in the Little Shasta and Solomon's Temple quadrangles. The 12-quadrangle search included: China Mtn, Gazelle, Hotlum, Juniper Flat, Lake Shastina, Little Shasta, Montague, Solomon's Temple, Panther Rock, Grass Lake, The Whaleback and Weed. Federal species lists are for the entire county.

* All plants tracked by the CNDDB are assigned to a California Rare Plant Rank category. These categories are:

1A= Plants presumed extinct in California and rare/extinct elsewhere

- 1B.1= Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
- 1B.2= Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
- 1B.3= Plants rare, threatened, or endangered in California and elsewhere; not very threatened in California
- 2A= Plants presumed extirpated in California, but more common elsewhere
- 2B.1= Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
- 2B.2= Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
- 2B.3= Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California
- 3.1= Plants about which we need more information; seriously threatened in California
- 3.2= Plants about which we need more information; fairly threatened in California
- 3.3= Plants about which we need more information; not very threatened in California
- 4.1= Plants of limited distribution; seriously threatened in California
- 4.2= Plants of limited distribution; fairly threatened in California
- 4.3= Plants of limited distribution; not very threatened in California

Scientific Name	Common Name	State Status	Federal Status	Federal Critical Habitat Present?	CDFW Status*	General Habitat Description	Habitat Potentially Present?	Species Present Known?
Amphibians and	Reptiles				•			
Rana pretiosa	Oregon spotted frog	None	Threatened	No	None	Wetlands, lakes and slow-moving streams	Yes	No
Ambystoma macrodactylum sigillatum	Southern long-toed salamander	None	None	No	SSC	Pine, hardwood-conifer, mixed conifer, montane riparian, red fir and wet meadows.	No	No
Rana cascadae	Cascades frog	None	None	No	SSC	Mountain lakes, small streams, ponds; shallow (standing water) required for breeding; habitats W/O predatory fish	No	No
Emys marmorata	western pond turtle	None	None	No	SSC	Permanent water with basking sites (ponds, ditches, streams)	Yes	No
Birds								
Coccyzus americanus	Yellow-billed cuckoo	Endangered	Threatened	No	None	Wooded habitats with dense cover and water nearby; shrublands and dense thickets	No	No
Strix occidentalis caurina	Northern spotted owl	Candidate Threatened	Threatened	No	SSC	Old growth/mature conifer forest	No	No
Haliaeetus leucocephalus	bald eagle	Delisted	Endangered	No	FP	Near large water bodies, rivers with adjacent perches	Yes	No
Accipiter cooperii	Cooper's hawk	None	None	No	WL	Dense stands of live oak, riparian deciduous or other forest habitats near water.	No	No
Accipiter gentilis	northern goshawk	None	None	No	SSC	Mature and old growth forests	No	No

Accipiter striatus	sharp- shinned hawk	None	None	No	WL	Breeds in pine/conifer, oak, riparian deciduous habitats. Forages in openings at edges of woodlands, hedgerows, brushy pasture, shoreline	Yes	No
Agelaius tricolor	tricolored blackbird	None	None	No	SSC	Colonial breeder near freshwater, preferably in emergent wetland with tall, dense cattails or tules; also thickets of willow, blackberry, wild rose, tall herbs. Feeds in grass/crop lands.	Yes	No
Aquila chrysaetos	golden eagle	None	None	No	FP;WL	Rolling foothills, mountain areas, sage-juniper flats, desert; cliffs or large trees used for nesting	No	No
Ardea herodias	great blue heron	None	None	No	None	Nests in colonies in large snags/trees; forages in shallow estuaries and fresh & saline emergent wetlands, rivers, croplands, pastures, mountains.	Yes	No
Asio otus	long-eared owl	None	None	No	SSC	Riparian habitat required; live oak or dense tree stands	No	No
Athene cunicularia	burrowing owl	None	None	No	SSC	Open, dry grassland and desert habitats; grass, forb and open shrub stages of pinyon-juniper & ponderosa pine habitats	No	No
Bonasa umbellus	ruffed grouse	None	None	No	WL	Valley foothill riparian and surrounding conifer forests	No	No
Buteo swainsoni	Swainson's hawk	Threatened	None	No	None	Open grassland/cropland with scattered large trees/groves	Yes	No
Chlidonias niger	black tern	None	None	No	SSC	Loosely colonial breeders; Breeds in freshwater wetlands or dry ground, other abandoned nests (muskrat, coot, grebe); emergent wetland, lakes, ponds, moist	Yes	No

						grasslands, ag fields; insect and small aquatic prey		
Circus cyaneus	northern harrier	None	None	No	SSC	Nests on ground in shrubby veg, usually at marsh edge. Meadows, grasslands, open rangelands, fresh & saltwater emergent wetlands.	Yes	No
Falco mexicanus	prairie falcon	None	None	No	WL	Perennial grasslands, savannahs, rangeland, some ag fields and desert scrub.	Yes	No
Grus canadensis tabida	greater sandhill crane	Threatened	None	No	FP	Wet meadow, emergent wetlands; croplands. Nesting season March-June.	Yes - summer range	Yes
Larus californicus	California gull	None	None	No	WL	Nests colonially in alkali & freshwater lacustrine habitats; frequents inland lacustrine, riverine and cropland habitats	No	No
Pandion haliaetus	osprey	None	None	No	WL	Large, fish-bearing waters primarily in ponderosa pine and mixed conifer habitats	No	No
Phalacrocorax auritus	double- crested cormorant	None	None	No	WL	Coast, inland lakes, estuaries. Lacustrine & riverine habitats.	Yes	No
Psiloscops flammeolus	flammulated owl	None	None	No	None	Coastal breeder; coniferous habitats with low to intermediate canopy closure	No	No
Riparia riparia	bank swallow	Threatened	None	No	None	Riparian, lacustrine and coastal areas with vertical banks, bluffs and cliffs with fine-textured or sandy soil.	No	No
Crustaceans								
Branchinecta conservatio	Conservancy fairy shrimp	None	Endangered	No	None	Vernal pools	No	No

Branchinecta lynchi	Vernal pool fairy shrimp	None	Threatened	No	None	Vernal pools	No	No
Lepidurus packardi	Vernal pool tadpole shrimp	None	Endangered	No	None	Vernal pools	No	No
Fishes								
Deltistes luxatus	Lost River sucker		Endangered	No	None	Klamath River	No	No
Chasmistes brevirostris	Shortnose sucker		Endangered	No	None	Klamath River	No	No
Oncorhynchus kisutch	coho salmon - southern Oregon / northern California ESU	Threatened	Threatened	Yes	None	Shasta River and tributaries	Yes	Yes
Oncorhynchus mykiss irideus	steelhead - Klamath Mountains Province DPS	None	None	No	SSC	Shasta River and tributaries	Yes	Yes
Oncorhynchus tshawytscha	Chinook salmon-upper Klamath and Trinity Rivers ESU	None	None	None	SSC	Shasta River and tributaries		
Mammals	l	I	l		l		1	
Taxidea taxus	American badger	None	None	None	SSC	Herbaceous or shrub, must have friable soils; primarily rodent prey	Yes	No
Pekania pennanti	fisher - West Coast DPS	Candidate Threatened	Proposed threatened	No	SSC	Coniferous forest or dense deciduous riparian	No	No
Canis lupus	gray wolf	Endangered	Endangered	No	None	Generalist; ungulate prey & low human presence	No	No
Vulpes vulpes necator	Sierra Nevada red fox	Threatened	None	None	None	Alpine and conifer forests, wet meadows	No	No

Corynorhinus	Townsend's	Candidate	None	None	SSC	Caves, mines, tunnels, structures	No	No
townsendii	big-eared bat	Threatened						
Gulo gulo	California wolverine	Threatened	None	None	FP	Douglas-fir and mixed conifer habitats, wet meadow and	No	No
	Worverme					montane riparian.		

Note: California State listed species are identified from California Natural Diversity Database. The project is located in the Lake Shastina quadrangle. The 9-quadrangle search include: China Mtn, Gazelle, Hotlum, Juniper Flat, Lake Shastina, Little Shasta, Montague, Solomons Temple, and Weed. Federal species lists are for the entire county.

*The California Department of Fish and Wildlife (CDFW) Status applies to animals only. The possible values for CDFW Status are:

FP Fully Protected: This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts.

SSC Species of Special Concern: It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability.

WL Watch List: The Department of Fish and Wildlife maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

COMMON NAME	SCIENTIFIC	BREEDING HABITAT TYPE	Species or Habitat	
	NAME		Potentially Present?	
Bald Eagle	Haliaeetus	Large water bodies, rivers with	Yes	
	leucocephalus	adjacent perches.		
Black Swift	Cypseloides	Nests on ledges or shallow caves in	No	
	niger	steep rock faces.		
Brewer's Sparrow	Spizella	Breeds in sagebrush-dominated	No	
	breweri	shrublands.		
Calliope Hummingbird	Stellula	Open montane forest, mountain	Yes	
	calliope	meadows, willow/alder thickets.		
Flammulated Owl	Otus	Open pine (ponderosa) forests with	No	
	flammeolus	abundant insect prey.		
Fox Sparrow	Passerella	Brushy fields, dense riparian	No	
•	iliaca	thickets.		
Green-tailed Towhee	Pipilo	Dense shrubs, deserts, sagebrush	No	
	chlorurus	shrubsteppe, oak-juniper		
		woodlands		
Lewis's Woodpecker	Melanerpes	Open pine (ponderosa) forest, open	No	
- Compositor	lewis	riparian (cottonwood) woodlands.		
Loggerhead Shrike	Lanius	Open country with spiny	Yes	
20880111000 01111110	ludovicianus	shrubs/low trees, ag fields, riparian		
Oak Titmouse	Baeolophus	Oak or oak-pine woodlands	No	
our remouse	inornatus	out of out pine woodiands	110	
Olive-sided Flycatcher	Contopus	Montane & coniferous forests, forest	Yes	
onve sided r lyeatener	cooperi	edge meadows/ponds.	163	
Peregrine Falcon	Falco	Nests on high ledges of rock or	No	
reregime raicon	peregrinus	manmade structures.	NO	
Purple Finch	Carpodacus	Open coniferous & mixed	No	
rui pie rilicii	purpureus	coniferous-deciduous forests.	NO	
	Selasphorus	Open or shrubby areas, mountain	Yes	
Rufous Hummingbird		meadows. Nest in deciduous or	ies	
	rufus			
	Omacaaawt	conifer trees.	No	
Sage Thrasher	Oreoscoptes	Shrubsteppe habitats, dense	No	
Short-eared Owl	montanus	sagebrush.	N -	
Short-eared OWI	Asio flammeus	Nests on the ground in prairies,	No	
Concern Diagram	Chanad-i	hayfields or stubble fields.	No	
Snowy Plover	Charadrius	Breeds on coastal beaches, sand	No	
	alexandrinus	spits, beaches at river mouths.	17	
Swainson's Hawk	Buteo	Shrubsteppe with scattered trees,	Yes	
	swainsoni	large shrubs & riparian adjacent to		
YAY	4 7 7	irrigated agricultural areas.	N.	
Western grebe	Aechmophorus	Breed on freshwater lakes &	No	
	occidentalis	marshes.		
White Headed Woodpecker	Picoides albolarvatus	Montane coniferous pine forests.	No	
Williamson's Sapsucker	Sphyrapicus	Open coniferous & mixed	No	
•	thyroideus	coniferous-deciduous forests.		
Willow Flycatcher	Empidonax	Moist, shrubby areas near water.	Yes	
•	traillii			

Appendix C - Protective Measures

A seasonal limited operating period will be placed on construction activities within 500 feet of the sandhill crane nesting habitat (Figure 2). From March 1 to June 30, no construction activities will occur in the area, thus minimizing disturbance to nesting cranes.

All potential impacts to federally listed coho and steelhead from moving the fish screen, piping the ditches, installing new headgates and flow meters were consulted upon and addressed in the 2012 Biological Opinion issued by NOAA Fisheries pertaining to future U.S. Army Corps of Engineers permits within Siskiyou and other northern California counties. The following measures identified in the Biological Opinion will be implemented to minimize impacts to listed fish species and their habitat:

General Protection Measures

- Work shall not begin until (a) the Corps and/or NOAA Restoration Center has notified the
 applicant to the Program that the requirements of the Endangered Species Act have been
 satisfied and that the activity is authorized and (b) all other necessary permits and
 authorizations are finalized.
- The general construction season shall be from June 15 to November 1. Restoration, construction, fish relocation, and dewatering activities within any wetted or flowing stream channel shall only occur within this period. Revegetation outside of the active channel may continue beyond November 1, if necessary.
- Construction within or through the ditches will occur outside of the irrigation season, when the ditches are dewatered.
- Poured concrete shall be excluded from the wetted channel for a period of 30 days after it is
 poured. During that time the poured concrete shall be kept moist, and runoff from the concrete
 shall not be allowed to enter a live stream. Commercial sealants may be applied to the poured
 concrete surface where difficulty in excluding water flow for a long period may occur. If sealant
 is used, water shall be excluded from the site until the sealant is dry and fully cured according to
 the manufacturer's specifications.

Piping Ditches

• Landowners will enter into an agreement with NOAA RC or Corps stating that they will maintain the pipe for at least 10 years.

Dewatering Areas

- In those specific cases where it is deemed necessary to work in flowing water, the work area shall be isolated and all flowing water shall be temporarily diverted around the work site to maintain downstream flows during construction.
- Exclude fish from occupying the work area by blocking the stream channel above and below the work area with fine-meshed net or screens. Mesh will be no greater than 1/8 inch diameter. The bottom of a seine must be completely secured to the channel bed. Screens must be checked twice daily and cleaned of debris to permit free flow of water. Block nets shall be placed and maintained throughout the dewatering period at the upper and lower extent of the areas where fish will be removed. Block net mesh shall be sized to ensure salmonids upstream or downstream do not enter the areas proposed for dewatering between passes with the electrofisher or seine.

- Prior to dewatering, determine the best means to bypass flow through the work area to minimize disturbance to the channel and avoid direct mortality of fish and other aquatic vertebrates.
- Coordinate project site dewatering with a qualified biologist to perform fish and amphibian relocation activities. The qualified biologist(s) must possess a valid state of California Scientific Collection Permit as issued by the CDFG and must be familiar with the life history and identification of listed salmonids and listed amphibians within the action area.
- Prior to dewatering a construction site, qualified individuals will capture and relocate fish and amphibians to avoid direct mortality and minimize adverse effects. This is especially important if listed species are present within the project site.
- Minimize the length of the dewatered stream channel and duration of dewatering, to the extent practicable.
- Any temporary dam or other artificial obstruction constructed shall only be built from materials
 such as sandbags or clean gravel which will cause little or no siltation. Visqueen shall be placed
 over sandbags used for construction of cofferdams construction to minimize water seepage into
 the construction areas. Visqueen shall be firmly anchored to the streambed to minimize water
 seepage. Coffer dams and stream diversion systems shall remain in place and fully functional
 throughout the construction period.
- Secure pumps by tying off to a tree or stake in place to prevent movement by vibration. Refuel
 in an area well away from the stream channel and place fuel absorbent mats under pump while
 refueling. Pump intakes shall be covered with 1/8 inch mesh to prevent potential entrainment of
 fish or amphibians that failed to be removed. Check intake periodically for impingement of fish
 or amphibians.
- If pumping is necessary to dewater the work site, procedures for pumped water shall include requiring a temporary siltation basin for treatment of all water prior to entering any waterway and not allowing oil or other greasy substances originating from operations to enter or be placed where they could enter a wetted channel. Projects will adhere to NMFS Southwest Region Fish Screening Criteria for Salmonids (NMFS 1997a).
- Discharge sediment-laden water from construction area to an upland location or settling pond where it will not drain sediment-laden water back to the stream channel.
- When construction is complete, the flow diversion structure shall be removed as soon as
 possible in a manner that will allow flow to resume with the least disturbance to the substrate.
 Cofferdams will be removed so surface elevations of water impounded above the cofferdam will
 not be reduced at a rate greater than one inch per hour. This will minimize the probability of fish
 stranding as the area upstream becomes dewatered.

Instream Work

- If the stream channel is seasonally dry between June 15 and November 1, construction will only occur during this dry period.
- Debris, soil, silt, excessive bark, rubbish, creosote-treated wood, raw cement/concrete or
 washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or
 any other substances which could be hazardous to aquatic life, resulting from project related
 activities, shall be prevented from contaminating the soil or entering the waters of the United
 States. Any of these materials, placed within or where they may enter a stream or lake, by the
 applicant or any party working under contract, or with permission of the applicant, shall be

- removed immediately. During project activities, all trash that may attract potential predators of salmonids will be properly contained, removed from the work site, and disposed of daily.
- Where feasible, the construction shall occur from the bank, or on a temporary pad underlain with filter fabric.
- Use of heavy equipment shall be avoided in a channel bottom with rocky or cobbled substrate. If
 access to the work site requires crossing a rocky or cobbled substrate, a rubber tire
 loader/backhoe is the preferred vehicle. Only after this option has been determined infeasible
 will the use of tracked vehicles be considered. The amount of time this equipment is stationed,
 working, or traveling within the creek bed shall be minimized. When heavy equipment is used,
 woody debris and vegetation on banks and in the channel shall not be disturbed if outside of the
 project's scope.
- All mechanized equipment working in the stream channel or within 25 feet of a wetted channel shall have a double containment system for diesel and oil fluids. Hydraulic fluids in mechanical equipment working within the stream channel shall not contain organophosphate esters.
 Vegetable based hydraulic fluids are preferred.
- The use or storage of petroleum-powered equipment shall be accomplished in a manner to prevent the potential release of petroleum materials into waters of the state (Fish and Game Code 5650).
- Areas for fuel storage, refueling, and servicing of construction equipment must be located in an upland location.
- Prior to use, clean all equipment to remove external oil, grease, dirt, or mud. Wash sites must be located in upland locations so wash water does not flow into a stream channel or adjacent wetlands.
- All construction equipment must be in good working condition, showing no signs of fuel or oil leaks. Prior to construction, all mechanical equipment shall be thoroughly inspected and evaluated for the potential of fluid leakage. All mechanical equipment shall be inspected on a daily basis to ensure there are no motor oil, transmission fluid, hydraulic fluid, or coolant leaks. All leaks shall be repaired in the equipment staging area or other suitable location prior to resumption of construction activity.
- Oil absorbent and spill containment materials shall be located on site when mechanical
 equipment is in operation with 100 feet of the proposed watercourse crossings. If a spill occurs,
 no additional work shall commence in-channel until (1) the mechanical equipment is inspected
 by the contractor, and the leak has been repaired, (2) the spill has been contained, and (3) CDFG
 and NOAA RC are contacted and have evaluated the impacts of the spill.

Minimizing Impacts to Migratory Birds

• If possible, conduct all vegetation removal, including trees for large would structures, outside of the migratory nesting season (February 1 to August 31). However, if clearing of any vegetation or any construction activities occur during the avian breeding window in the riparian area along the Little Shasta River, preconstruction surveys for nesting migratory birds shall be conducted no earlier than 7 days prior to removal by a qualified wildlife biologist. Surveys shall be conducted in accordance with CDFW or USFWS survey protocol for each species. Survey area shall include construction zone, all vegetation removal and transport areas, staging areas, and a 300 ft radius surrounding construction zone to determine whether activities taking place have the potential to disturb or otherwise harm nesting migratory birds. If nests are found, consultation with CDFW and USFWS migratory bird program shall occur regarding the appropriate action.

• If a migratory bird nest is located within the 300 feet of disturbance, and the disturbance must take place during nesting season (February 1 through August 31), a buffer zone shall be established by the biologist and confirmed by the appropriate resource agency (CDFG an/or USFWS). The buffer area requirements will be 300 feet for any willow flycatcher nest (or as approved by CDFG). A qualified wildlife biologist shall monitor the nest to determine when the you have fledged and submit bi-weekly reports throughout the nesting season.

Minimizing Impacts to Water Quality

- (1) General erosion control during construction:
 - When appropriate, isolate the construction area from flowing water until project materials are installed and erosion protection is in place.
 - Effective erosion control measures shall be in place at all times during construction. Do not start construction until all temporary control devices (e.g., straw bales with sterile, weed free straw, silt fences) are in place downslope or downstream of project site within the riparian area. The devices shall be properly installed at all locations where the likelihood of sediment input exists. These devices shall be in place during and after construction activities for the purposes of minimizing fine sediment and sediment/water slurry input to flowing water and detaining sediment-laden water on site. If continued erosion is likely to occur after construction is complete, then appropriate erosion prevention measures shall be implemented and maintained until erosion has subsided. Erosion control devices such as coir rolls or erosion control blankets will not contain plastic netting of a mesh size that would entrain reptiles (esp. snakes) and amphibians.
 - Sediment shall be removed from sediment controls once it has reached one-third of the exposed height of the control. Whenever straw bales are used, they shall be sterile and weed free, staked and dug into the ground 12 cm. Catch basins shall be maintained so that no more than 15 cm of sediment depth accumulates within traps or sumps.
 - Sediment-laden water created by construction activity shall be filtered before it leaves the settling pond or enters the stream network or an aquatic resource area.
 - The contractor/applicant to the Program is required to inspect, maintain or repair all erosion control devices prior to and after any storm event, at 24 hour intervals during extended storm events, and a minimum of every two weeks until all erosion control measures have been completed.

(2) Guidelines for temporary stockpiling:

- Minimize temporary stockpiling of material. Stockpile excavated material in areas where it cannot enter the stream channel. Prior to start of construction, determine if such sites are available at or near the project location. If nearby sites are unavailable, determine location where material will be deposited. Establish locations to deposit spoils well away from watercourses with the potential to delivery sediment into streams supporting, or historically supporting populations of listed salmonids. Spoils shall be contoured to disperse runoff and stabilized with mulch and (native) vegetation. Use devices such as plastic sheeting held down with rocks or sandbags over stockpiles, silt fences, or berms of hay bales, to minimize movement of exposed or stockpiled soils.
- If feasible, conserve topsoil for reuse at project location or use in other areas. End haul spoils away from watercourses as soon as possible to minimize potential sediment delivery.

(3) Minimizing potential for scour:

 When needed, utilize instream grade control structures to control channel scour, sediment routing, and headwall cutting.

- For relief culverts or structures, if a pipe or structure that empties into a stream is installed, an energy dissipater shall be installed to reduce bed and bank scour. This does not apply to culverts in fish bearing streams.
- The toe of rock slope protection used for streambank stabilization shall be placed below the bed scour depth to ensure stability.

(4) Post construction erosion control:

- Immediately after project completion and before close of seasonal work window, stabilize all
 exposed soil with erosion control measures such as mulch, seeding, and/or placement of erosion
 control blankets. Remove all artificial erosion control devices after the project area has fully
 stabilized. All exposed soil present in and around the project site shall be stabilized after
 construction. Erosion control devices such as coir rolls or erosion control blankets will not
 contain plastic netting of a mesh size that would entrain reptiles (esp. snakes) and amphibians.
- All bare and/or disturbed slopes (> 100 square ft of bare mineral soil) will be treated with
 erosion control measures such as hay bales, netting, fiber rolls, and hydroseed as permanent
 erosion control measures.
- Where straw, mulch, or slash is used as erosion control on bare mineral soil, the minimum coverage shall be 95 percent with a minimum depth of two inches.
- When seeding is used as an erosion control measure, only seeds from native plant species will be used. Sterile (without seeds), weed-free straw, free of exotic weeds, is required when hay or hay bales are used as erosional control measures.

APPENDIX F

Hart Ranch Wetland Delineation Prepared for: Hart Ranch Rabe Consulting, November 2016

Hart Ranch

Wetland Delineation

Prepared for: Hart Ranch November 2016



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Introduction

Rabe Consulting has performed a wetland investigation and delineation on an irrigation pipeline and fish screen project in Siskiyou County, California. Preliminary pre-field investigation showed that there are NWI maps for the proposed project site that display wetlands on the subject parcel (Appendix A).

This report presents the results of the Hart Ranch Project Wetland Delineation, which was conducted by Andréa Rabe of Rabe Consulting on August 10, 2016. The investigation occurred during the irrigation season. Andréa Rabe, a Professional Wetland Scientist, has 18 years of experience conducting wetland delineations. She has been trained in the use of the Army Corps of Engineers Western Mountains, Valleys, and Coast Regional Supplement for conducting wetland delineations.

This report documents the investigation, best professional judgment and conclusions of the investigators. It should be considered a Preliminary Jurisdictional Delineation and used at your own risk until it has been reviewed and approved in writing by the U.S. Army Corps of Engineers.

The overall project objectives are to (1) enhance flow in the Little Shasta River during critical coho salmon migration periods; (2) ensure long-term operation and maintenance of irrigation infrastructure for the Hart Ranch and the Montague Water Conservation District (MWCD); and (3) improve fish passage in the Little Shasta River.

By improving agricultural water infrastructure, water management opportunities, and fish passage in the Little Shasta River, the project intends to improve water quality and coho salmon habitat in the Little Shasta River with a resultant permanent instream dedication of up to 1.5 cfs and permissive dedication of their remaining 22.7 cfs water right by the Hart Ranch while maintaining viable agricultural lands.

A. Landscape Setting and Land Use

The study area is approximately 65.00 acres in a rural area within the north central portion of the unincorporated area of Siskiyou County, California (Appendix A). Hart Ranch is located in Siskiyou County, California in Township 44N, Range 5W, Sections 34, 35, and 36 and Township 45N, Range 5W, Sections 1, 2, 3, 11, 12 and 14. This project will be sited primarily at the Hart Ranch, with one component located upstream at the existing agricultural irrigation diversion on the Little Shasta River.

The Hart Ranch Project, which consists of 1,276.5 acres of the 4,698-acre ranch, is privately owned and is operated primarily for beef cattle production, including extensive irrigation of forage and pasture. The Ranch lies within the Little Shasta River watershed and holds certain rights to Little Shasta River water, which are used with other water entitlements and groundwater for irrigation and livestock watering. All components of this project are located on existing active agricultural lands which are zoned for agricultural use by Siskiyou County.

Currently, Hart Ranch has a point of diversion on the Little Shasta River to deliver priority rights water to the ranch. The point of diversion is located upstream of Hart Ranch's northeastern boundary. Diverted water travels to the ranch through a large diversion ditch, then into a series of irrigation ditches within the ranch property. A portion of the Little Shasta River flows through the northwestern corner of the ranch.

The Hart Ranch Flow Enhancement Project consists of the following elements, the locations of which are identified in Figure 1. All components are located on the Hart Ranch (41°41' 25.85"N latitude, 122° 22' 51.11"W longitude). More details of the proposal can be found in CEQA document.

- 1) Stockwater Improvement: This project component is located on the Hart Ranch along Harry Cash Road south of the Little Shasta River. This component of the project consists of (1) retrofitting of an existing groundwater well a new pump and motor; (2) two new water storage tanks approximately 10,000 gallons in size; (3) installation of approximately 22,556 linear feet of underground PVC pipe connection to 20 stockwater troughs; (4) installation of approximately 7,500 linear feet of riparian grazing management fencing; and (5) riparian planting along the Little Shasta River for a distance of approximately 14,500 linear feet; and (6) approximately 14,850 linear feet of cross fencing in existing pastures.
- 2) Hart Ranch Main Pipeline Replacement: This component of the project includes replacement of the existing main canal earthen ditch and failing pipeline with approximately 7,280 linear feet of underground PVC pipe with risers, valves, flow meter, and connection to existing groundwater wells, for improved water management opportunities and flood irrigation of the eastern portion of the Ranch.
- Montague Water Conservation District Canal Improvements: This component of the project is located along the Montague Water Conservation District (MWCD) main canal which bisects the Hart Ranch. The project's southern terminus is at Hart Road and is along the canal north.
- 4) Fish Passage Improvements: This component of the project includes (1) removal of the existing concrete dam, fish screen and old fish ladder walls along the Little Shasta River; (2) construction of approximately 105 linear feet of roughened channel with large boulder clusters and buttresses at a 2.5 3 percent grade, that provides fish passage opportunities; (3) modification of the agricultural diversion for the Hart Ranch (4) construction of a new cast-in-place concrete diversion structure with fish screen and fish return bypass that meets current NOAA and CDFW fish protection criteria; and (5) revegetation of the site.

Work will be conducted during the low flow period of August 15 to October 15. Stream flows during this period are anticipated to be less than about 3 cfs. Pumps will be used when necessary to remove ground water seepage into the isolated work area. Pumped ground water seepage will be spread over existing floodplain areas and allowed to infiltrate into the ground without causing river turbidity to increase. River flows will be diverted around the roughened channel and diversion structure intake during construction and will be returned to the newly constructed channel as soon as these portions of the work are complete. It is anticipated the project reach will

be dewatered for less than 6 weeks. Prior to grading activities, the contractor will salvage and store existing vegetation cuttings and willow transplants to be replanted following project completion.

The project impact area was defined as the project footprint with a 25 ft buffer. The MWCD canal was surveyed with the canal footprint and a 50 ft buffer, from the northern to southern property line of Hart Ranch. The portions of the MWCD canal outside of the Hart Ranch were not surveyed. The survey area at the diversion is 0.16 acres. The survey area within Hart Ranch is 41.5 acres with an additional 4.7 miles of MWCD canal.

Sparse riparian vegetation is present along the irrigation ditches and canals within the proposed project area. The riparian vegetation along the irrigation canals consists of bulrush and cattails along with other sedges and rushes in a narrow band a few inches (1-8 inches) wide along the high water line of the canals. The canal banks are steep and do not allow for a riparian bench. The smaller irrigation ditches exhibit mostly grasses with few sedges and rushes (1-3 inches in width) at their ordinary water line.

The Little Shasta River exhibits dense shrub and tree growth in the riparian area, with little to no understory. The shrubs include multiple species of willows.

The upland area around Dorris Hill and upslope toward the summit exhibit sparse sagebrush scrub with limited bunch grass cover (less than 25%). The area is rocky and exhibits areas of bare soil. The lower elevation areas below the slopes of Dorris Hill are fields are primarily permit pasture exhibiting pasture grasses or alfalfa fields used for hay production. Both of the field types are flood irrigated, but generally do not exhibit wetland features.

During the first field visit in August, the irrigation ditches were full or had some flow. During the second field visit in October, the ditches were dry as irrigation season had concluded. The study area is located in open space with no structures, exhibiting irrigated pastures, hayfields and natural areas.

B. Site Alterations

There are no recent site alterations in the study area. Past alterations on-site include development of the irrigation ditches, irrigation supply canal, and subsequent installation of irrigation pipeline in portions of the ditch. These alterations include a diversion from the Little Shasta River.

Off-site the following alterations occurred: agricultural land conversion with scattered residential residences surrounding the ranch, and native uplands surrounding portions of the ranch.

C. Precipitation Data and Analysis

The Weed Airport RAWS station (nearest weather station to the study area) received no precipitation from July 27 through August 9, 2016, the 14 days prior to the field investigation.

There was no precipitation on August 10, 2016. The following is based on the WETS Table for Yreka, California because the Weed Airport weather station does not generate a WETS table. Based on the Yreka WETS table, this area of Siskiyou County had a greater than normal amount of precipitation over the winter (December through March).

Summary of Precipitation between May 2016 and July 2016								
Month	Total Precipitation (in.)	Normal Range WETS	Within Normal Range?	Monthly Average (in.)	Departure From Average			
May	1.61	0.40 - 1.38 in.	Yes	1.15	+0.46 in. (140%)			
June	1.20	0.23 – 1.13 in.	No, Higher	0.95	-0.25 in. (79%)			
July	0.01	0.07 – 0.55 in.	No, Lower	0.49	-0.48 in. (2%)			

WETS Station Latitude: State FIPS/ Start yr	4142 'County(1 - 1971	Longi FIPS): End yr.	tude: 1 06093 - 2000	County	Elevat	kiyou	525	
	5	Temperat (Degrees	ure F.)	Precipitation				
			1		30% chance will have		avg # of	avg
Month		avg daily	l avg l	avg	 less than	more than 	w/.1 or more	snow fall
					1.53		7	4.4
February								DECOMMENDED IN THE
					0.94			100000000000000000000000000000000000000
					0.62			APRICA SOCIAL DAG
				1.15		1.38		50 mm 10 mm 10 mm
				0.95	0.23	1.13		0.0
August	90.2	50 1	70.0	0.49	0.07	0.55	1 2	
September	82.3	43.6	63.0	0.75	0.19	0.90	2	0.0
October	69.9	35.1	52.5	1.11	0.41	1.36	3	0.1
November								
December	44.5	23.5	34.0	3.17	1.34	3.86	7	3.1
Annual					The state of the s	and the second second		
	66.7 j	35.7	51.3				i i	i
Average	j	j		19.66			45	14.1
GROWING SEA					 Temperatur			
Deales								
	bility 				F or high			
		Ţ		-	ng and End ng Season		S	
50 percent *			3/27 to 11/10 227 days		4/26 to 10/23 180 days			o 10/ 6 days
70 p	70 percent *		3/20 to 11/17 241 days		4/21 to 10/28 189 days		5/16 to 10/11 147 days	

D. Methods

Rabe Consulting conducted a wetland delineation within the study area, which encompasses areas in Township 44N, Range 5W, Sections 34, 35, and 36 and Township 45N, Range 5W, Sections 1, 2, 3, 11, 12 and 14. The methods to delineate the study area were straightforward considering the nature of the parcel, which is largely a gradually sloped, open landscape.

The NWI map showed wetlands in portions of the study area (Appendix A: Figure 3). There is no Local Wetland Inventory (LWI) for this area.

The delineation was conducted on August 10, 2016, using the criteria outlined in the ACOE Manual as supplemented by the Western Mountains, Valleys and Coastal Regional Supplement (Version 2.0). Western Mountain, Valleys, and Coast Region Wetland Delineation data forms were used to record soils, vegetation, and hydrology data at sample plots within the study area (Appendix B).

Paired data plots were used to test for wetland presence at the wetted area near the river, but no wetland vegetation or soils were noted outside of the channel. Single data plots were used in the upland areas. In the areas with well-defined ditch channels, plot sets of three (one adjacent to the ditch, one in the ditch and one adjacent to the other side of the ditch) were used. Plot locations within the study area were chosen based on ArcGIS maps created showing topography, aerial imagery, soils and hydrology, and on observations of vegetation and hydrology during the field visit. Photo points were also taken with the plot number and direction of the photo noted. The study area boundary, photo points, and data plots were identified with a Trimble Juno 3B GPS unit with DGNSS/SBAS, with post-processing accuracy of 0.729m.

E. Description of All Wetlands and Other Non-Wetland Waters

Wetland Areas

Twenty two distinct wetland features, totaling 9.03 acres, were identified by Rabe Consulting wetland scientists within the Hart Ranch study area. The remainder of the study area is uplands. One waterway is a portion of the Shasta River. The remaining wetland/waterway areas are irrigation ditches. The wetlands documented in this report are graphically depicted on the wetland delineation maps (Appendix A). Jurisdictional wetlands were classified according to the Classification of Wetlands and Deepwater Habitats of the U.S. Classification System (Cowardin et al. 1979).

The following are descriptions of the wetlands located within the study area.

Wetland 1-10

These wetlands are small irrigation supply ditches within the study area. The study area crosses portions of these ditches, so only the portion within the study area was delineated with the remainder extending outside of the study area. These ditches are well maintained and therefore well defined. They exhibit steep ditchbanks which leave very little to no riparian vegetation before the waterway transitions from wetland to upland. The ditch banks are all considered upland and exhibit upland weedy species and pasture grasses.

The wetlands have the following sizes:

- Wetland 1: 0.01 acre
- Wetland 2: 0.02 acre
- Wetland 3: 0.02 acre
- Wetland 4: 0.02 acre
- Wetland 5: 0.01 acre
- Wetland 6: 0.04 acre
- Wetland 7: 0.02 acre
- Wetland 8: 0.06 acre
- Wetland 9: 0.03 acre
- Wetland 10: 0.02 acre

Wetland 11

This waterway is a portion of the Shasta River located in the north end of the study area where the diversion point intersects the Shasta River. The wetland is the active Shasta River channel and a narrow edge of vegetation along the ordinary high water margin. The upper bank of the river has mature willows. It is well defined by hydrologic indicators, topography and vegetation. The wetland within the study area is at the site of the diversion, which will be installed in the bottom of the river channel, and the diversion intake structure which is at the end of the ditch; the wetland area is less than 0.03 acre in size. The wetland (Shasta River) extends beyond the study area.

MWCD Wetlands

The MWCD canal within the Hart Ranch is approximately 5.7 miles in length. The waterway is intersected along this route by culverts and bridges for road crossings. Therefore, the portion of the canal within the study area is broken into 7 distinct wetland waterways. The canal channel varies from 18-22 feet in width. The channel is excavated with ditchbanks elevated above the adjacent agricultural fields and natural areas. The ditchbanks are upland and exhibit upland weedy species and grasses. Within the channel, the banks are steep leaving little to no riparian vegetation. The wetland boundary, is marked at the Ordinary High Water line (OHW). Therefore, the MWCD wetlands are considered non-vegetated waterways instead of wetlands. The waterway extends past the study area to the north and south.

The distinct MWCD Wetlands segments have the following sizes:

• MWCD Wetland 1: 1.07 acres

• MWCD Wetland 2: 0.86 acres

• MWCD Wetland 3: 0.81 acres

MWCD Wetland 4: 2.55 acres

• MWCD Wetland 5: 1.35 acres

• MWCD Wetland 6: 1.80 acres

MWCD Wetland 7: 0.25 acres

Evans Wetlands

The Evans irrigation ditch is located within the eastern portion of the Hart Ranch. The waterway is intersected along this route by culverts and bridges for road crossings and a section is piped. Therefore, the portion of the irrigation ditch within the study area is broken into 4 distinct wetland waterways. The ditch channel varies from 2-4 feet in width. The channel is excavated with ditchbanks elevated above the adjacent agricultural fields and natural areas. The ditchbanks are upland and exhibit upland weedy species and grasses. Within the channel, the banks are steep leaving little to no riparian vegetation. The wetland boundary, is marked at the Ordinary High Water line (OHW). Therefore, the Evans wetlands are considered non-vegetated waterways instead of wetlands. The entire Evans ditch is include in the study area.

The distinct Evans Wetlands segments have the following sizes:

• Evans Wetland 1: 0.01 acre

• Evans Wetland 2: 0.01 acre

• Evans Wetland 3: 0.02 acre

• Evans Wetland 4: 0.02 acre

Upland Areas

The majority of the study area consists of upland, as it does not exhibit wetland soils, hydrology or vegetation. The upland areas are similar or higher in elevation to surrounding irrigated fields. The upland areas around Doris Hill exhibit typical scrub habitat species such as sagebrush, rabbit brush, pasture grasses and forbs. Within the irrigated fields, the duration of flood or sprinkler irrigation was not long enough to create wetland characteristics. The irrigation is approximately applied for 2-3 days every 2 weeks, depending on weather and seasonality. The ditch banks did not exhibit wetland characteristics and are elevated compared to the ditches and fields.

F. Deviation from LWI or NWI

A review of the National Wetlands Inventory Map (Appendix A) indicates the presence of wetlands along some of the ditch and areas within the historic floodplain of the Shasta River within the study area. The wetlands are identified as Freshwater Emergent Wetland (PEMC) and Freshwater Forested/Shrub Wetland (PFOC). The scale and methodology used to

produce the NWI map (high altitude aerial photography interpretation) imposes some limitations on the accuracy of the NWI maps. It is highly recommended to field check NWI map data, as was done in this case.

This Delineation deviates from the NWI Maps as it did not identify wetlands within the portions of the irrigated fields which area within the study area. The wetlands associated with irrigation ditches were within areas identified as upland and wetland by NWI Maps.

G. Mapping Methods

All data plots, study area boundaries, and wet feature boundaries were mapped using a Trimble Juno 3B GPS unit with DGNSS/SBAS, with post-processing accuracy of 0.729m horizontal error (number of satellites 7).

H. Jurisdiction

The jurisdictional status of each feature is considered separately. In order to determine the jurisdictional status of the features, Rabe Consulting staff reviewed topographical maps and looked at the connectivity of the wetlands to surrounding jurisdictional features.

The following are descriptions of the wetlands located within the study area.

Wetlands 1-10

These wetlands are portions of irrigation ditches. Portions of the irrigation ditches are excavated within wetland areas. The ditch network drains back in the tributaries to the Shasta River, at least seasonally during high irrigation flows. Therefore, these wetlands are considered jurisdictional by Army Corps of Engineers guidelines.

Wetland 11

This wetland is a portion of the active river channel and is less than 0.01 acre in size; the wetland extends beyond the study area. The Shasta River is naturally occurring, although it is now controlled by the Dwinnell Dam. The wetland is fish bearing. This wetland is jurisdictional by Army Corps of Engineers guidelines.

MWCD Wetlands

These wetlands are segments of the MWCD irrigation supply canal. Whereas the majority of this canal is excavated from uplands, some portions of the canal are excavated from wetlands. The canal has a fish screen at the diversion, and is therefore non-fish bearing. As portions of this canal are excavated from wetlands, the MWCD Wetlands are considered jurisdictional by the Army Corps of Engineers guidelines.

Evans Wetlands

These wetlands are segments of the Evans irrigation supply canal. Whereas the majority of this canal is excavated from uplands, some portions of the canal are excavated from

wetlands. The canal has a fish screen at the diversion, and is therefore non-fish bearing. As portions of this canal are excavated from wetlands, the Evans Wetlands are considered jurisdictional by the Army Corps of Engineers guidelines.

I. Results and Conclusion

Twenty wetland or waterway areas, totaling 9.03 acres, were identified within the Hart Ranch study area; the rest of the study area is uplands. One waterway is a portion of the Shasta River. The remaining wetland/waterway areas are irrigation ditches. Portions of the ditches are excavated from wetlands, therefore all of the wetlands/waterways mapped within the study area are considered jurisdictional.

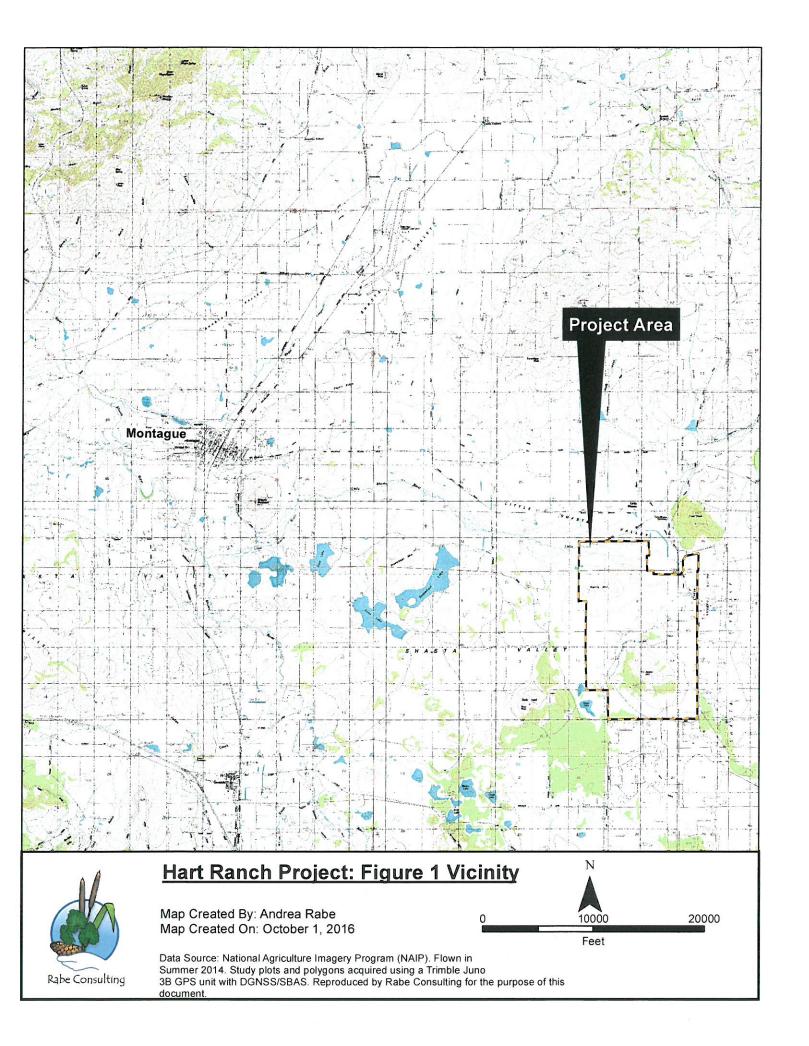
J. Disclaimer

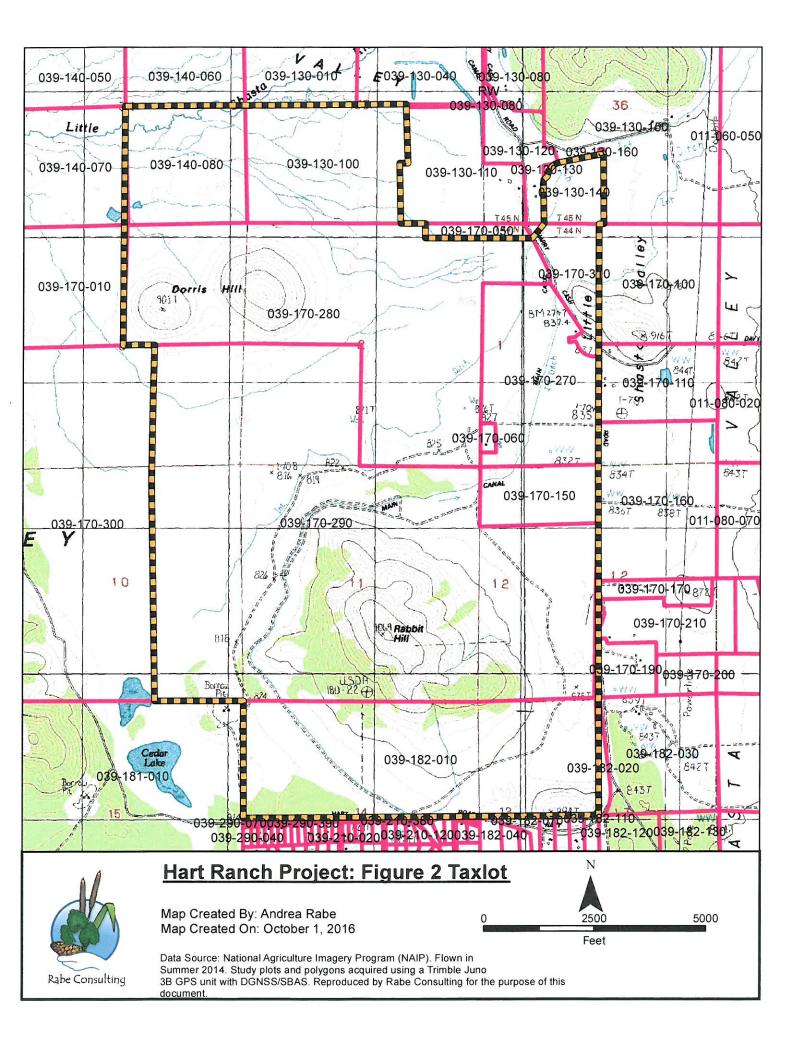
This report documents the investigation, best professional judgment and conclusions of the investigator. It is correct and complete to the best of my knowledge. It should be considered a Preliminary Jurisdictional Delineation and used at your own risk until it has been reviewed and approved in writing by the US Army Corps of Engineers.

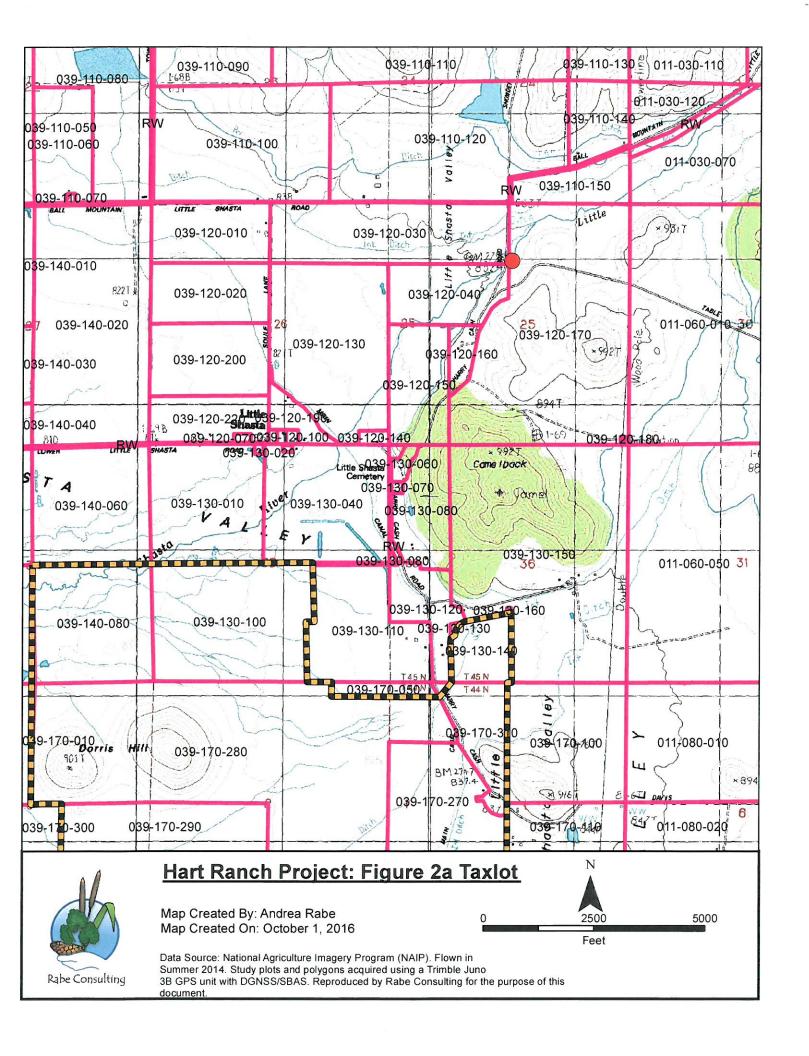
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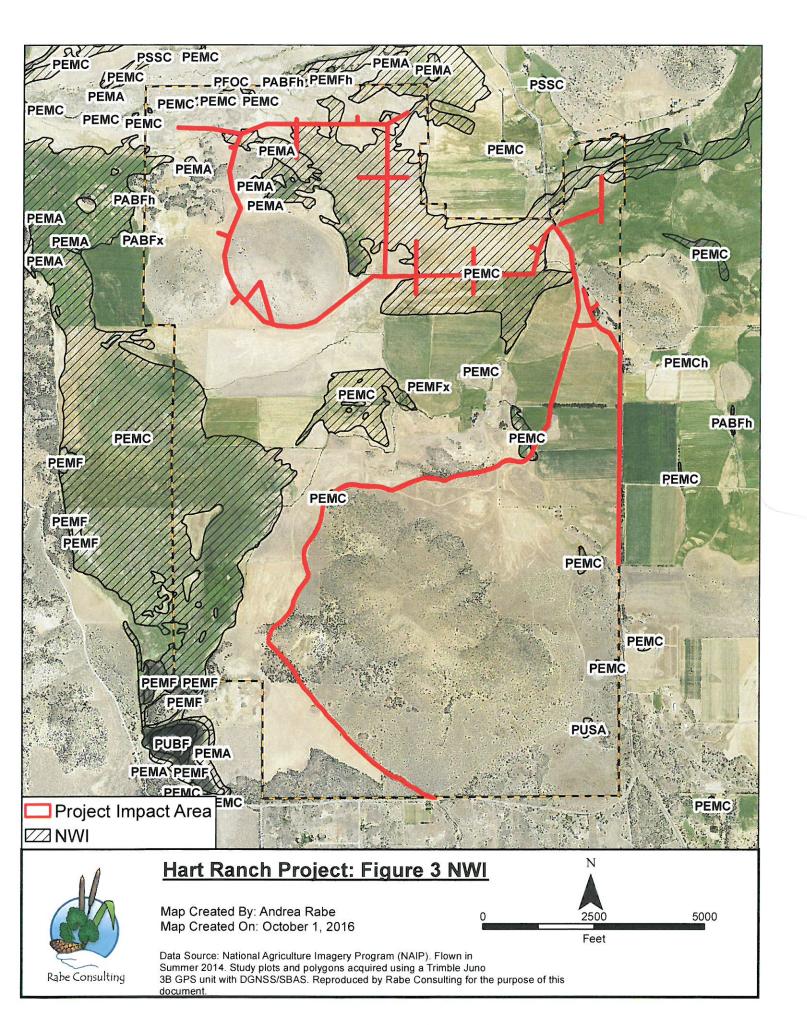
Andréa Rabe, PWS Rabe Consulting

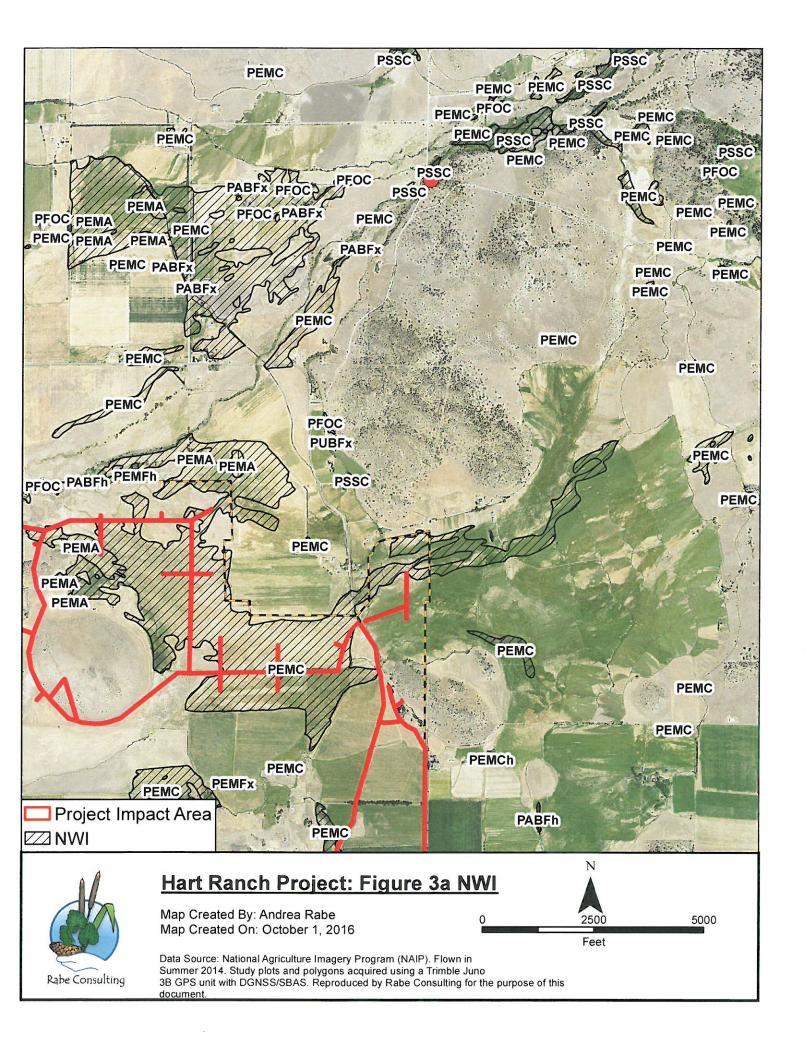
Appendix A Maps

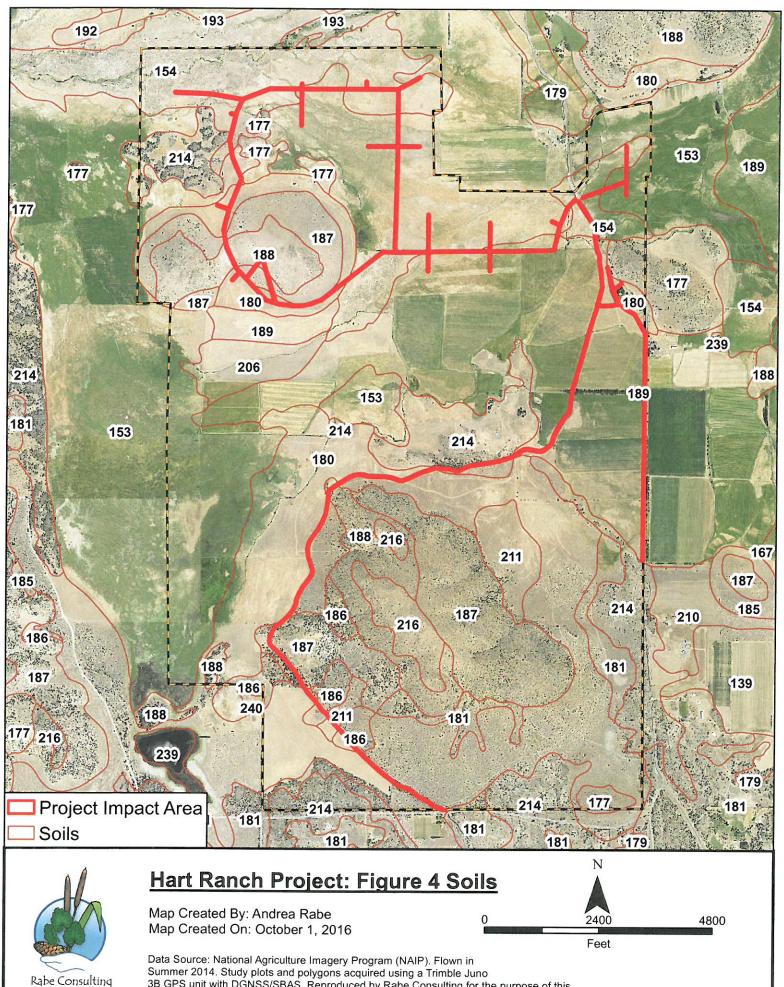




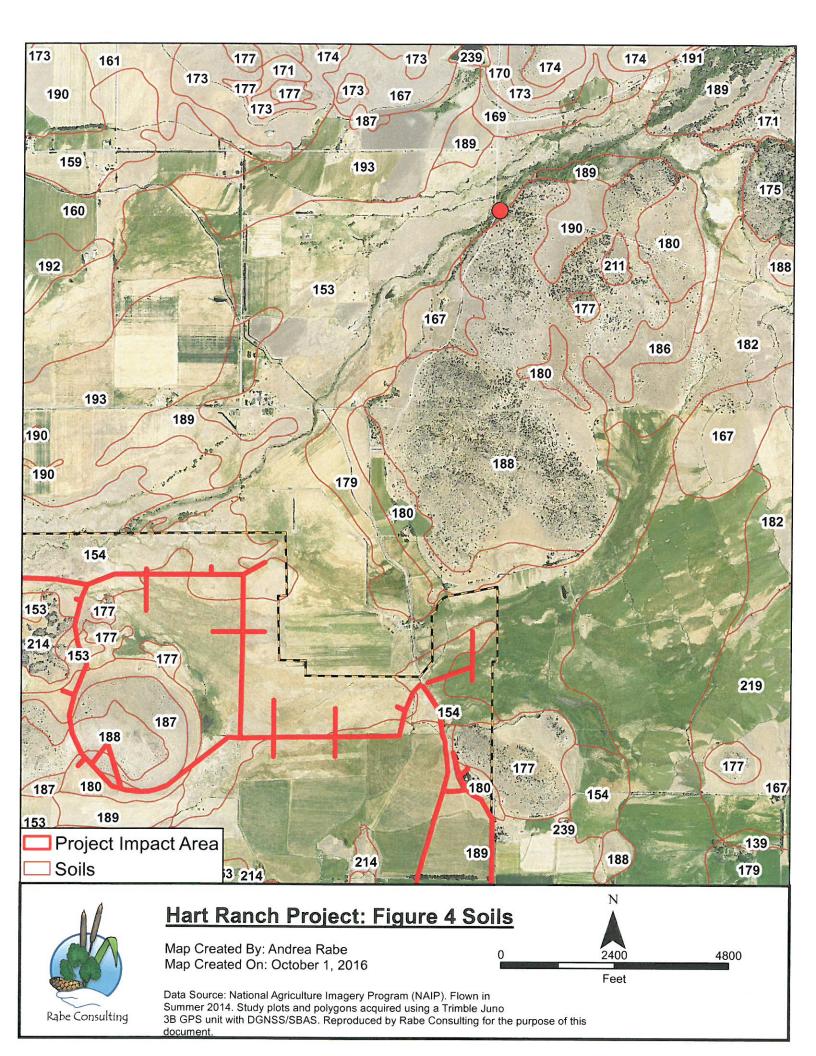




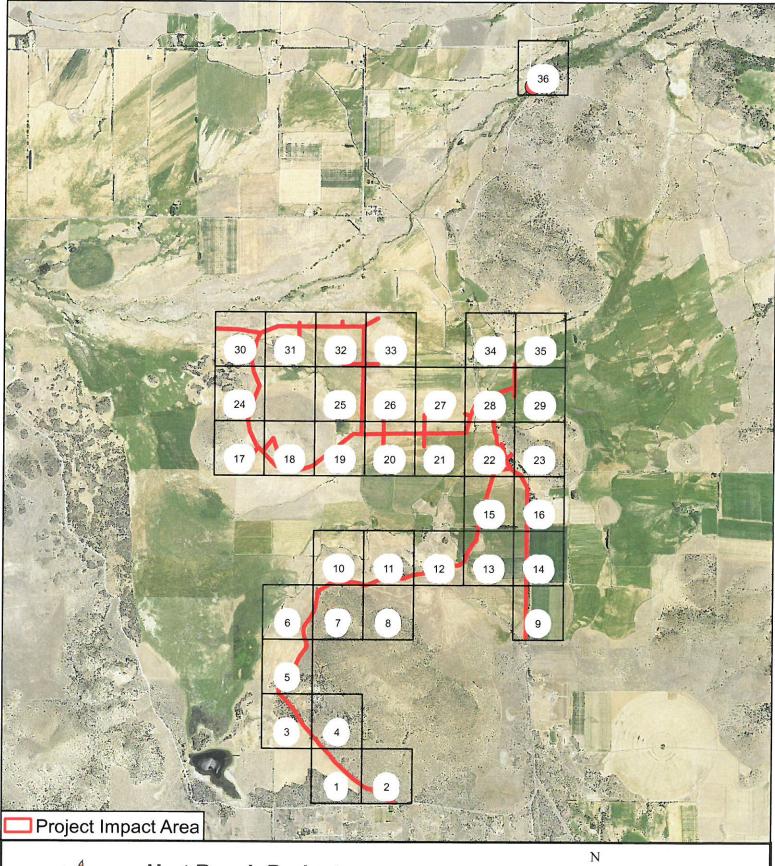




3B GPS unit with DGNSS/SBAS. Reproduced by Rabe Consulting for the purpose of this document.



Soil Map Number	Soil Name
153	GAZELLE SILT LOAM
154	GAZELLE VARIANT SANDY CLAY LOAM
177	LITHIC HAPLOXEROLLS-ROCK OUTCROP COMPLEX, 0 TO 65 PERCENT SLOPES*
180	LOUIE LOAM, 2 TO 9 PERCENT SLOPES
186	MARY LOAM, 9 TO 15 PERCENT SLOPES
187	MARY STONY LOAM, 2 TO 50 PERCENT SLOPES
188	MARY-ROCK OUTCROP COMPLEX, 2 TO 50 PERCENT SLOPES
189	MEDFORD CLAY LOAM, COOL, 0 TO 2 PERCENT SLOPES
211	REDOLA LOAM, 2 TO 9 PERCENT SLOPES
214	ROCK OUTCROP-LOUIE COMPLEX, 0 TO 15 PERCENT SLOPES



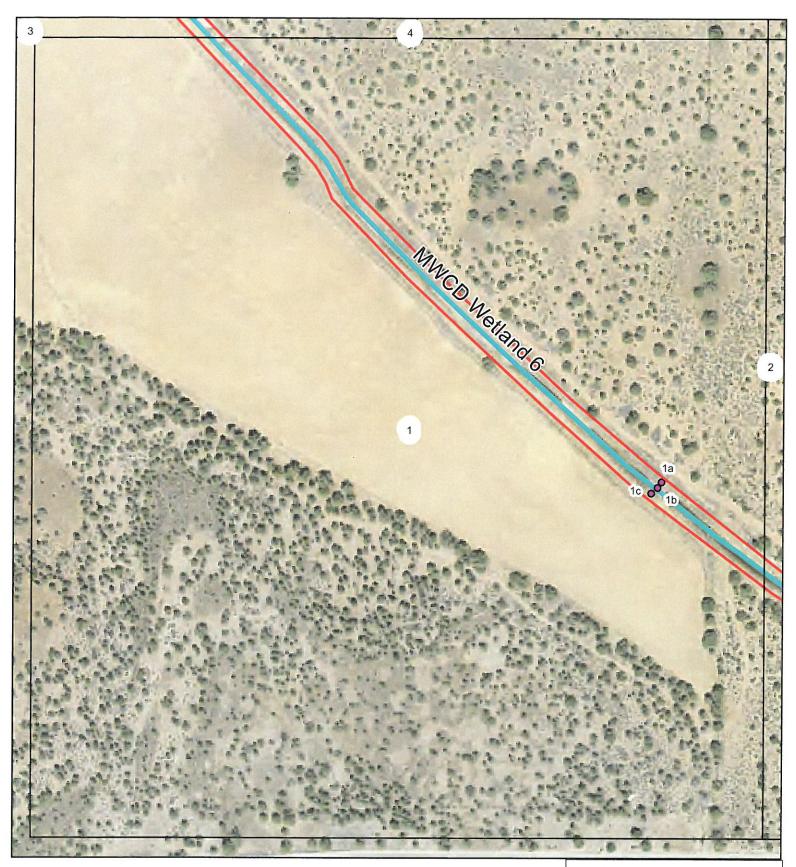


Hart Ranch Project

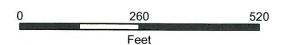
Map Created By: Andrea Rabe Map Created On: October 1, 2016



Data Source: National Agriculture Imagery Program (NAIP). Flown in Summer 2014. Study plots and polygons acquired using a Trimble Juno 3B GPS unit with DGNSS/SBAS. Reproduced by Rabe Consulting for the purpose of this document.







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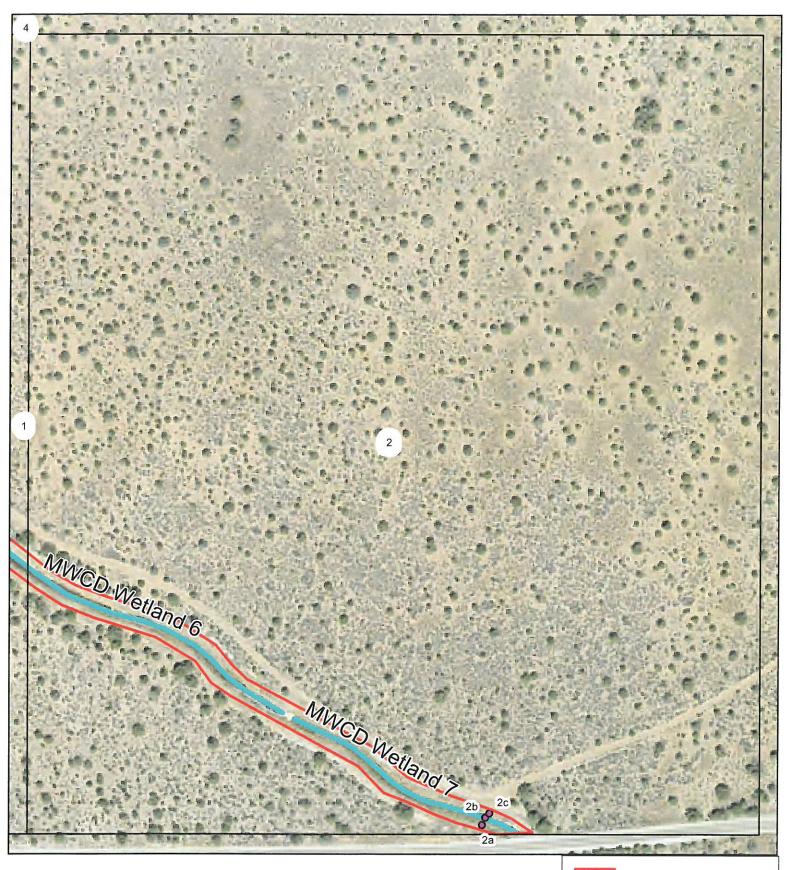
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Project Study Area

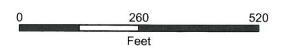
Data Plots

Wetlands

MWCD Ditch Wetland







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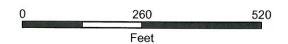
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Wetlands

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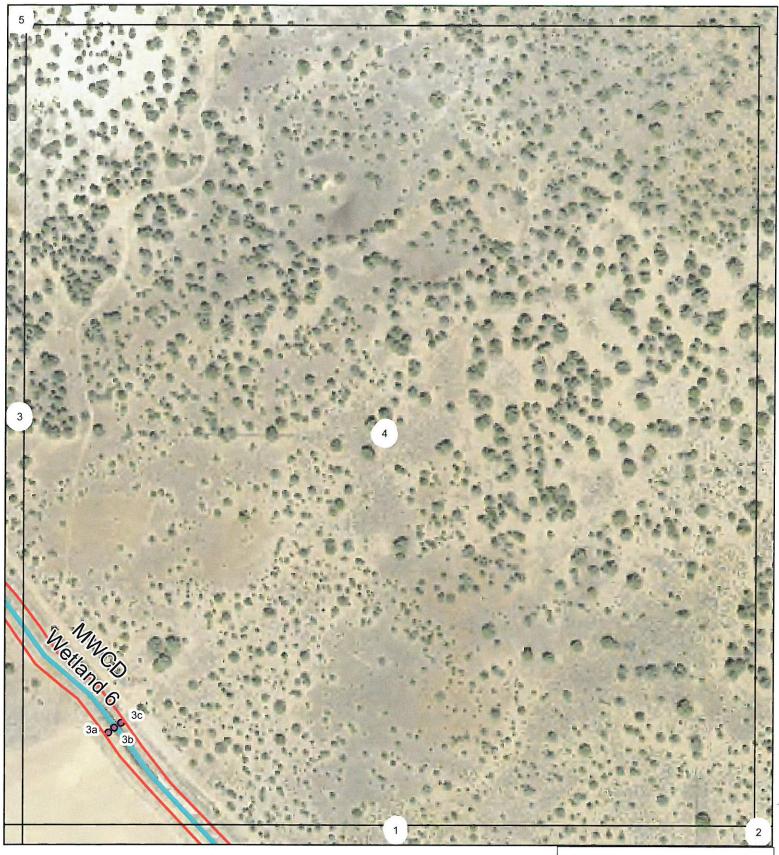
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Project Study Area

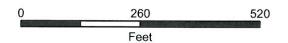
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Wetlands

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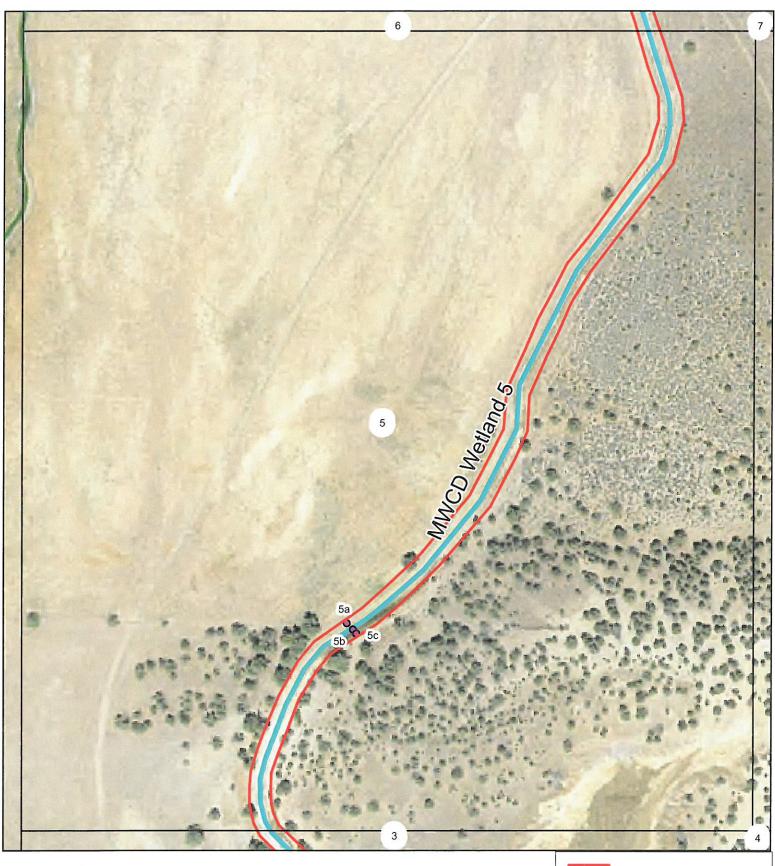
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Project Study Area

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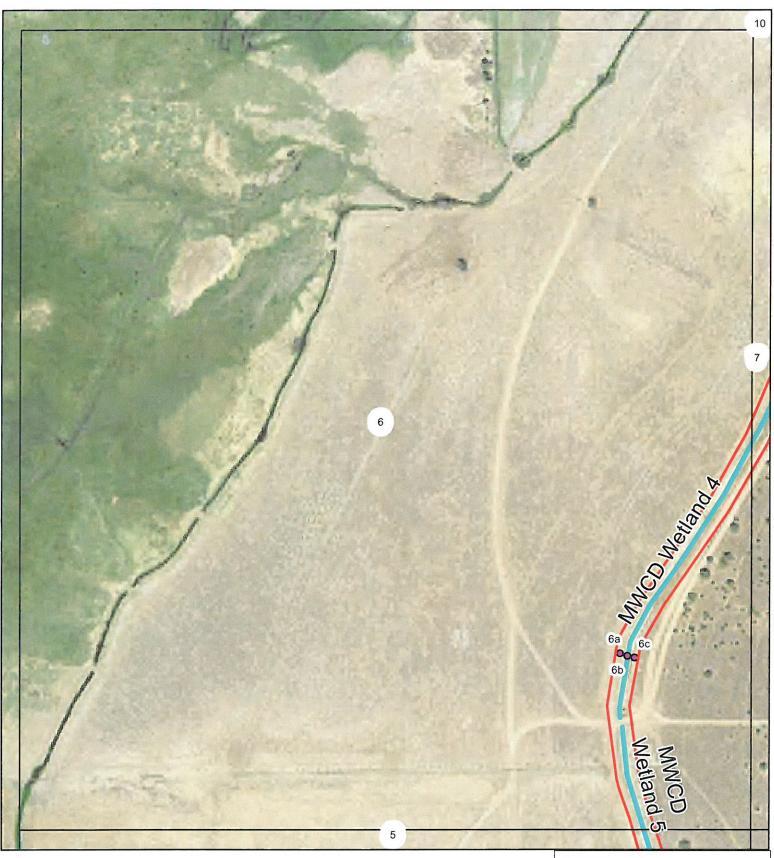
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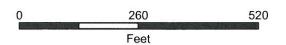
Data Plots

Wetlands

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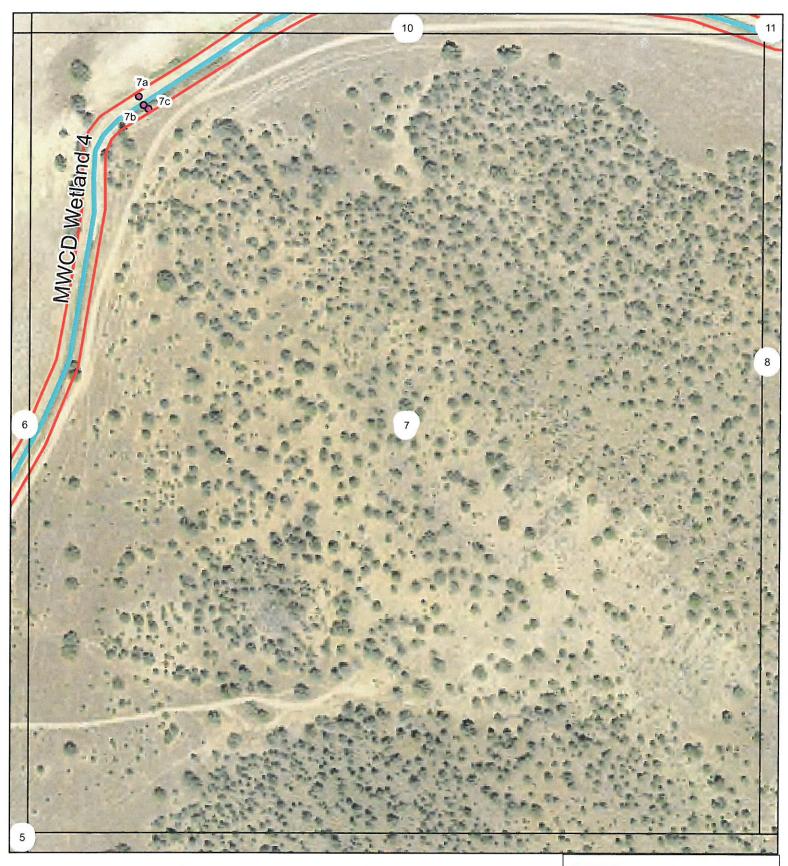
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Project Study Area

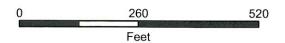
Data Plots

Wetlands

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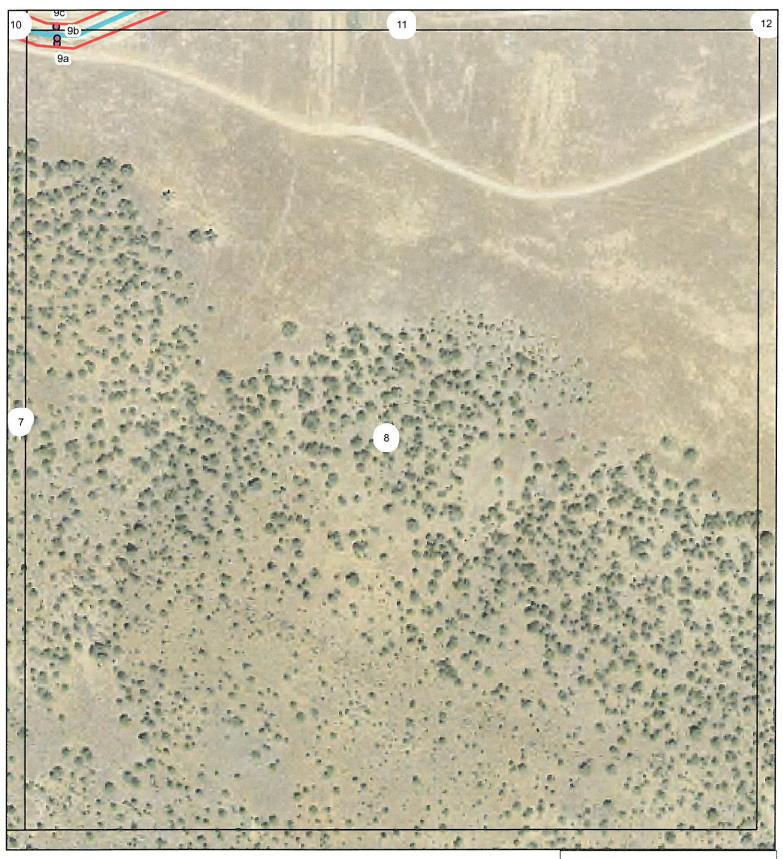
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Project Study Area

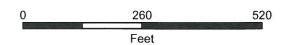
Data Plots

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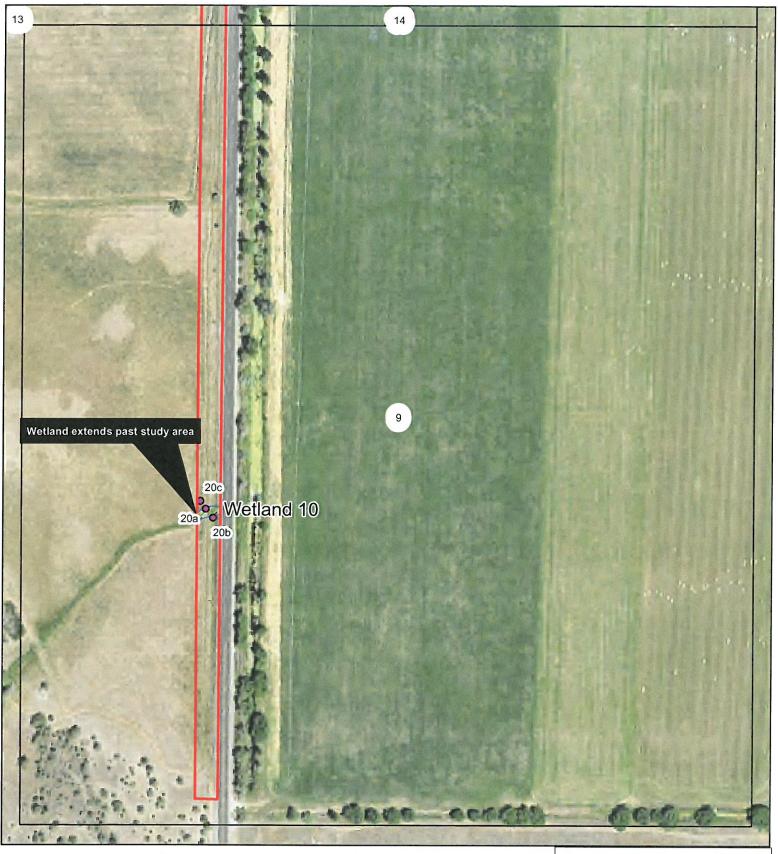
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Project Study Area

Data Plots

Wetlands

MWCD Ditch Wetland







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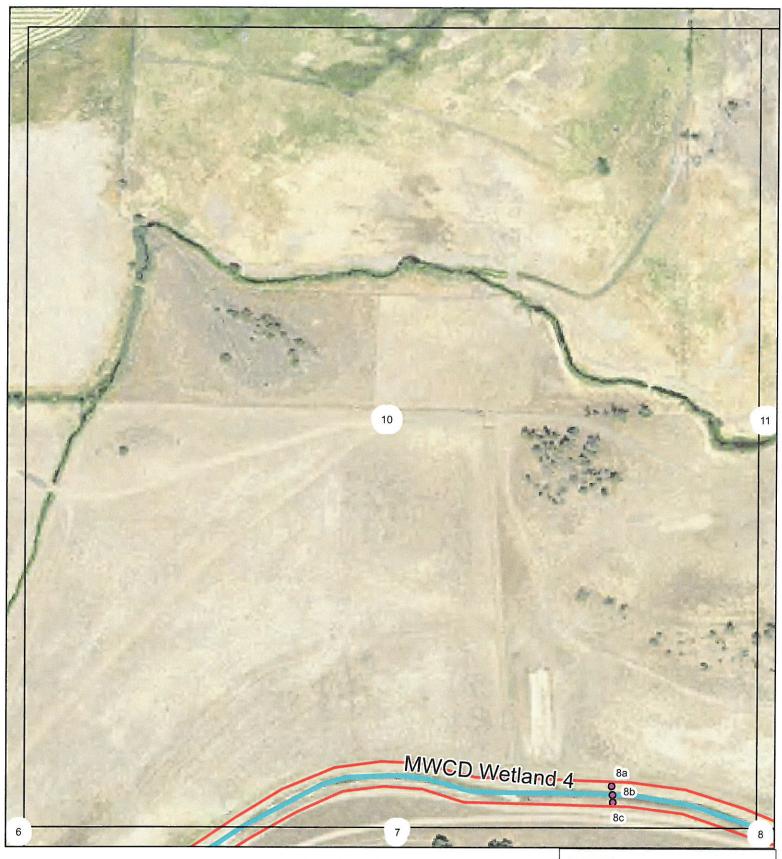
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Project Study Area

Data Plots

Wetlands

MWCD Ditch Wetland







Feet



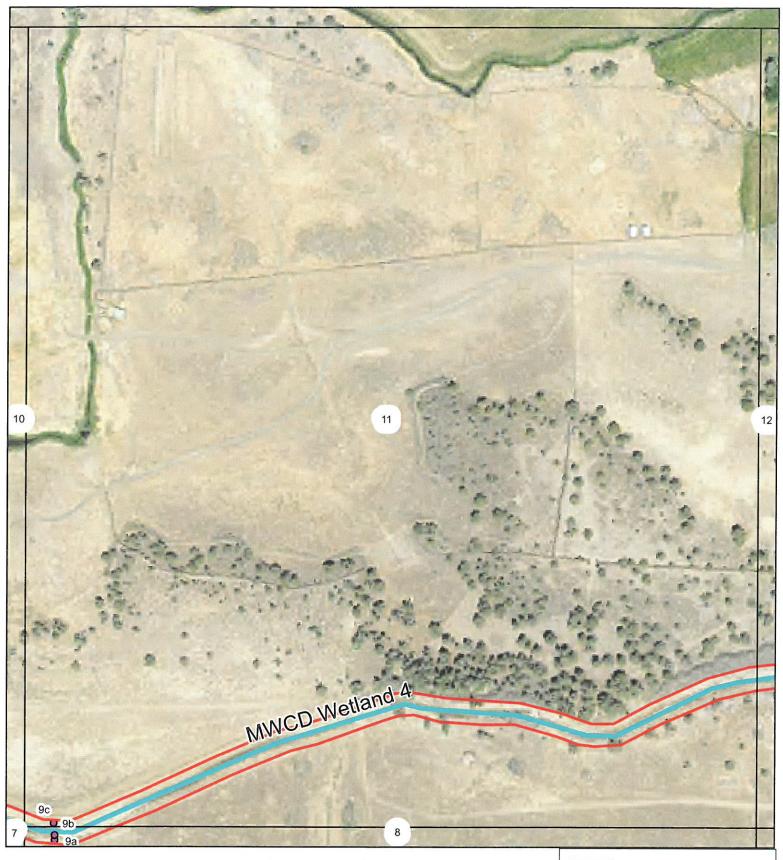
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Project Study Area

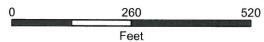
Data Plots

Wetlands

MWCD Ditch Wetland

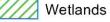






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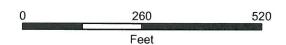




MWCD Ditch Wetland







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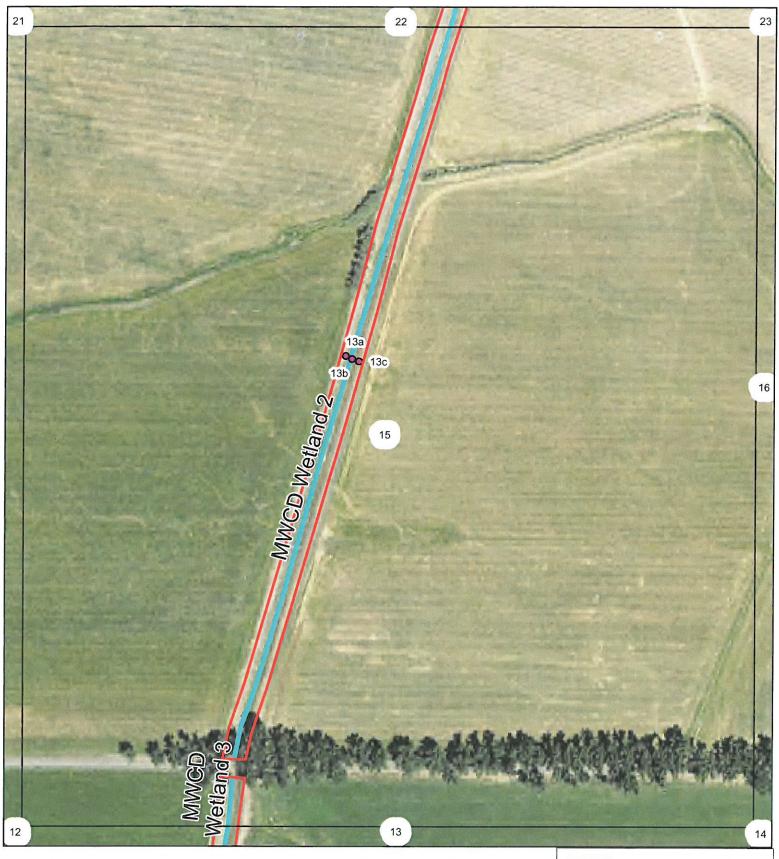


Project Study Area

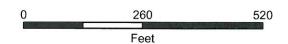
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Wetlands

MWCD Ditch Wetland







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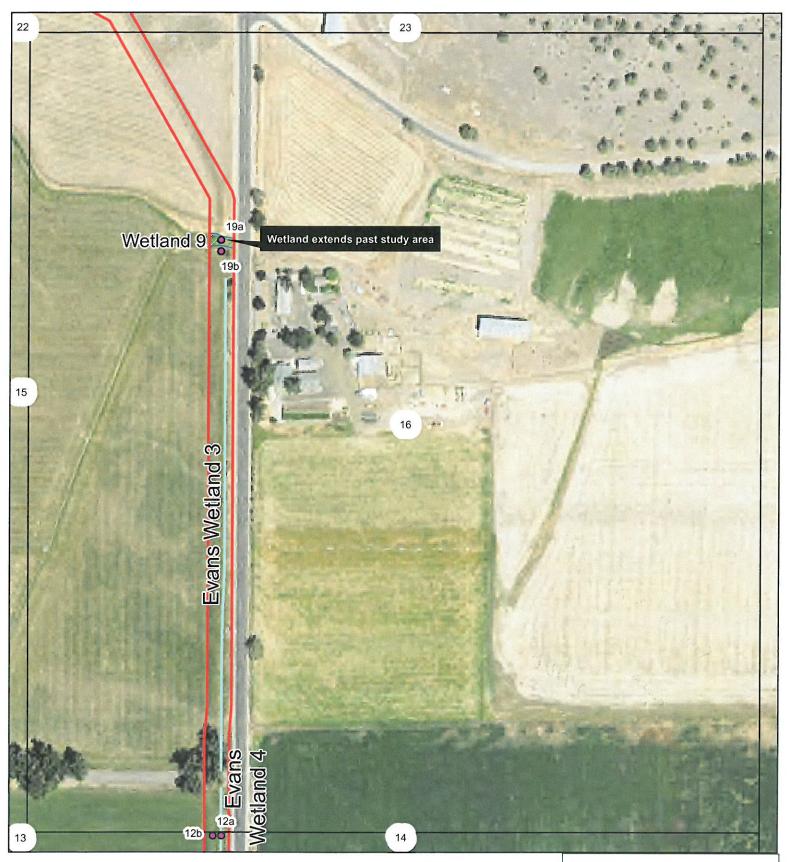
Data Source: National Agriculture Imagery Program (NAIP). Flown in Summer 2014. Study plots and polygons acquired using a Trimble Juno 3B GPS unit with DGNSS/SBAS. Reproduced by Rabe Consulting for the purpose of this document. Map Created By: Andrea Rabe Map Created On: October 1, 2016

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Data Plots

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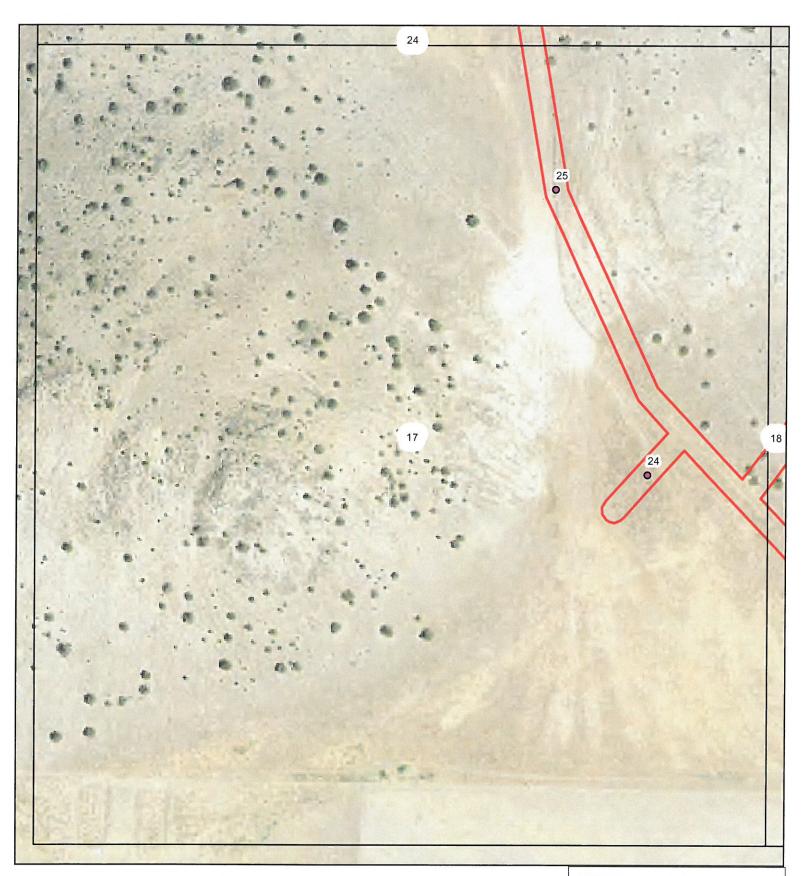
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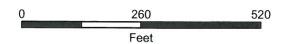
Data Plots

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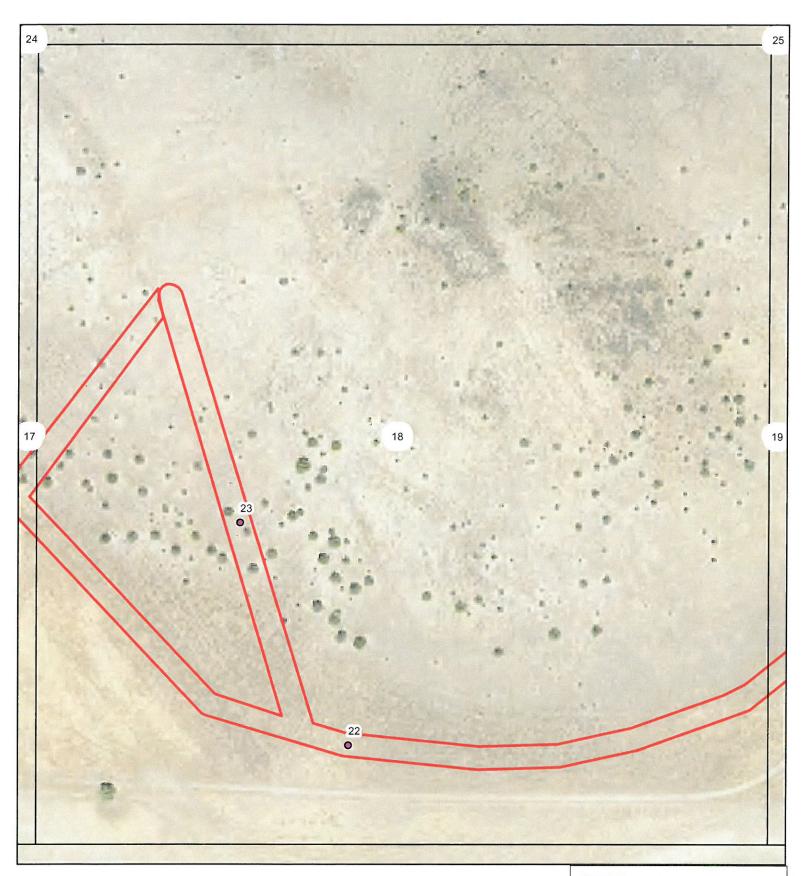


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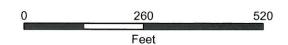
Project Study Area **Data Plots**

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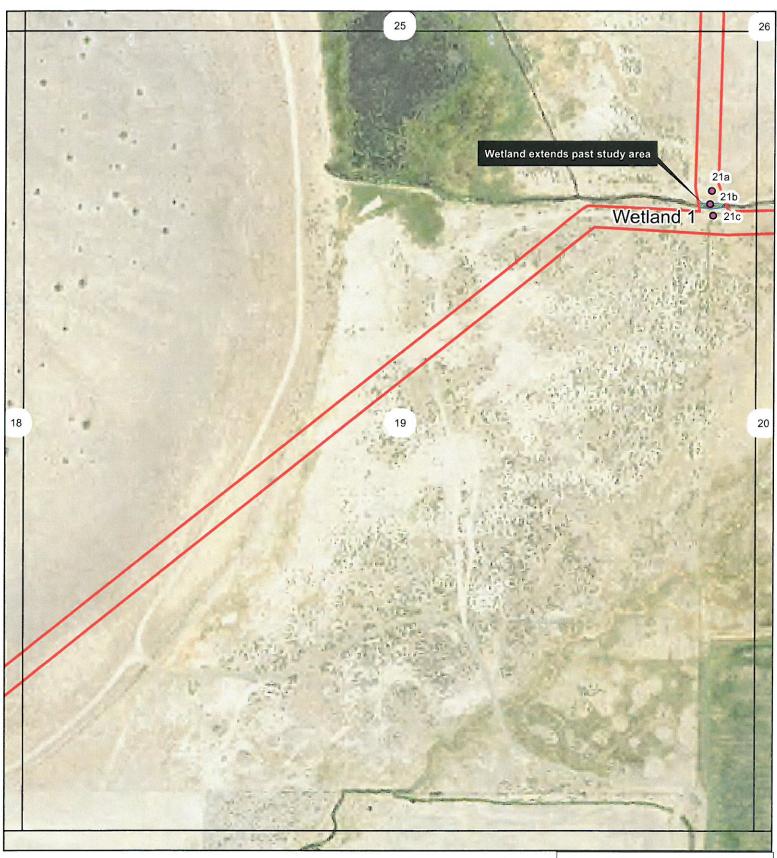
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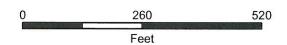
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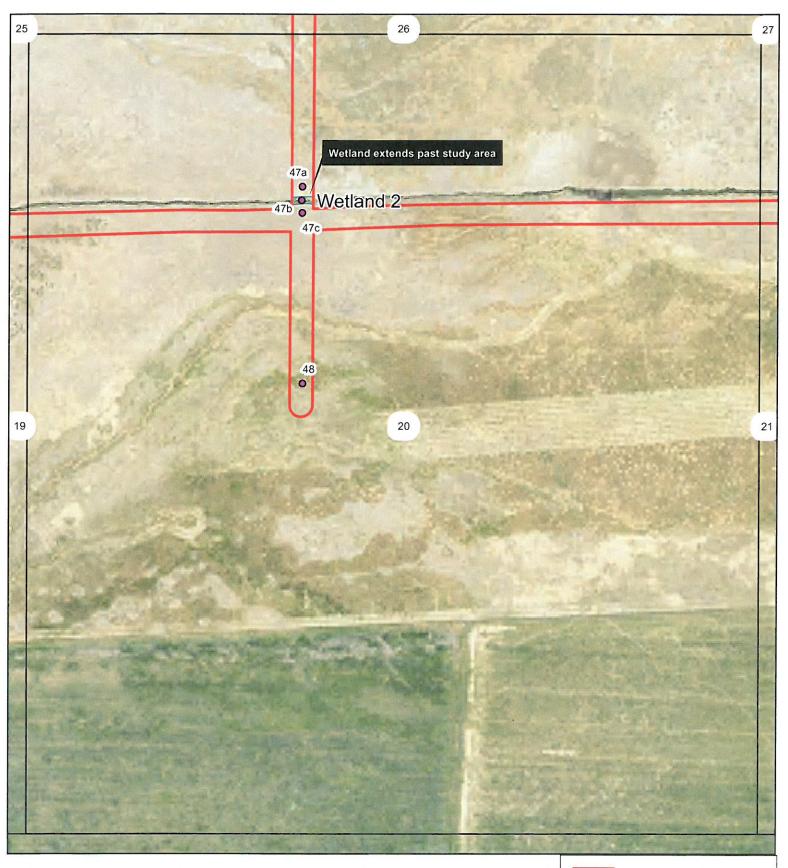
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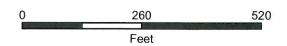
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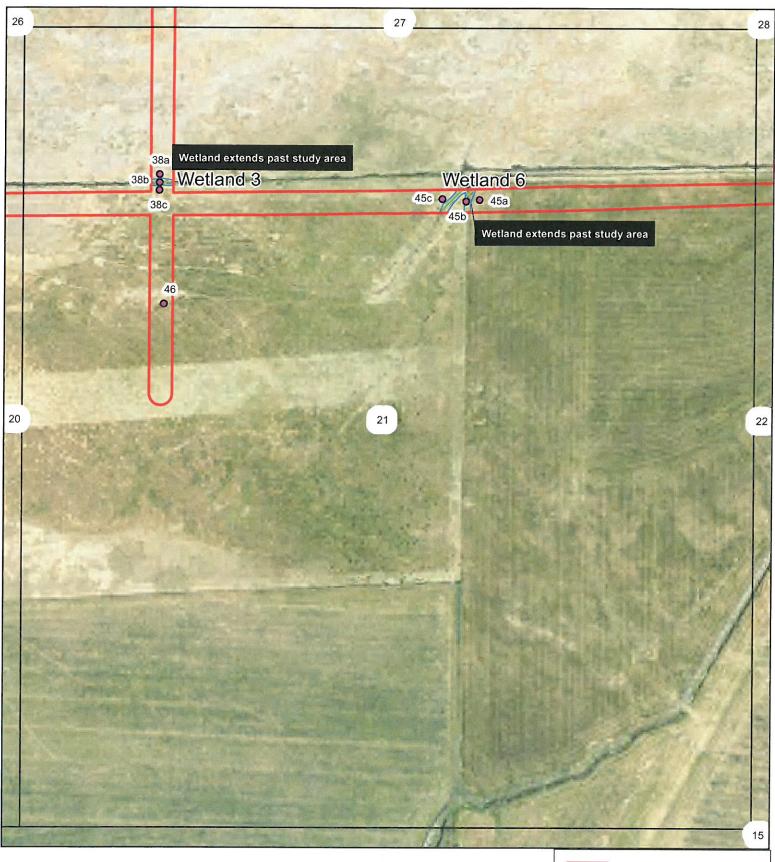
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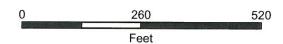
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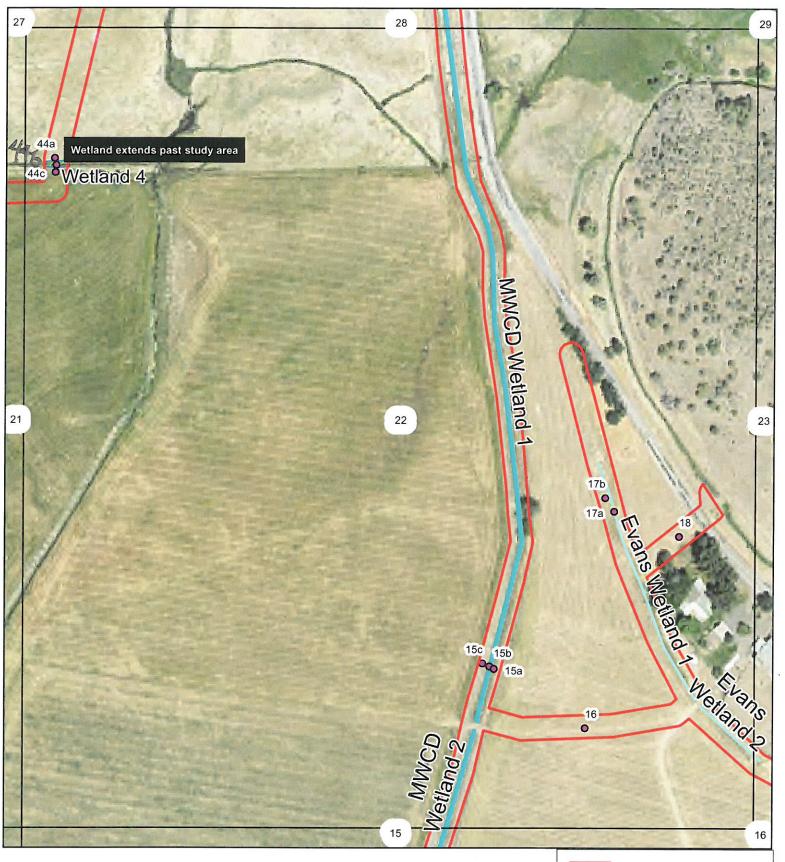
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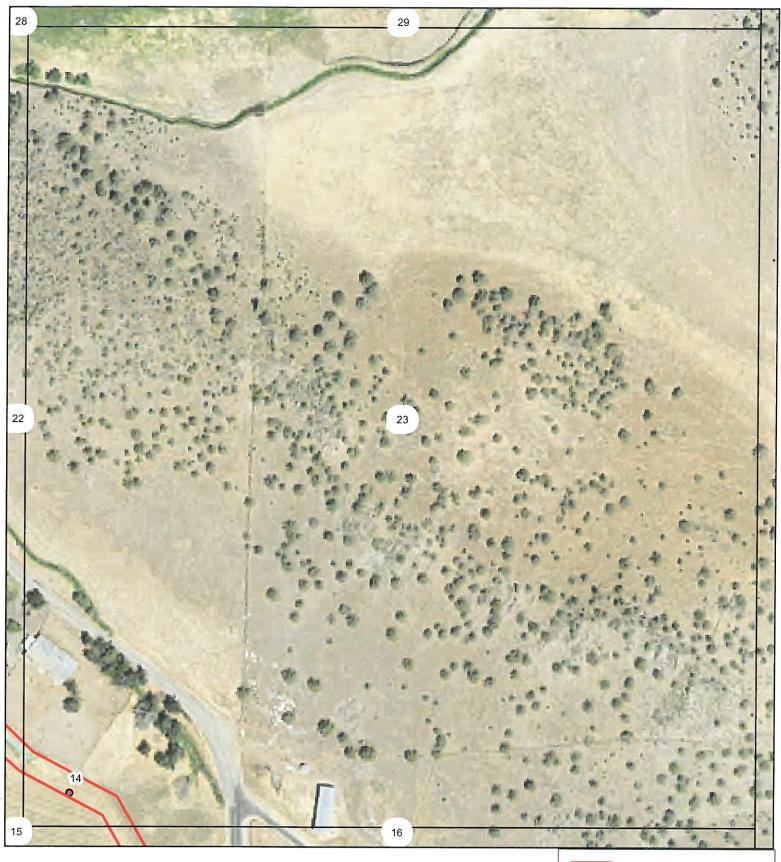
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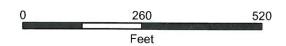
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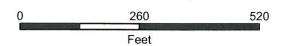
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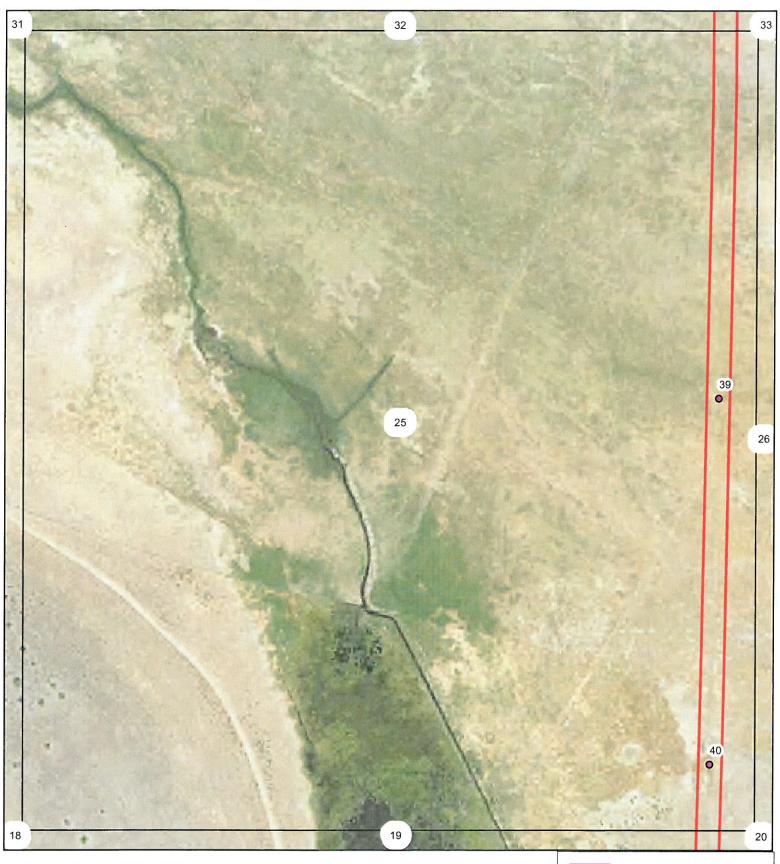
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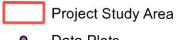
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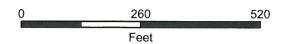
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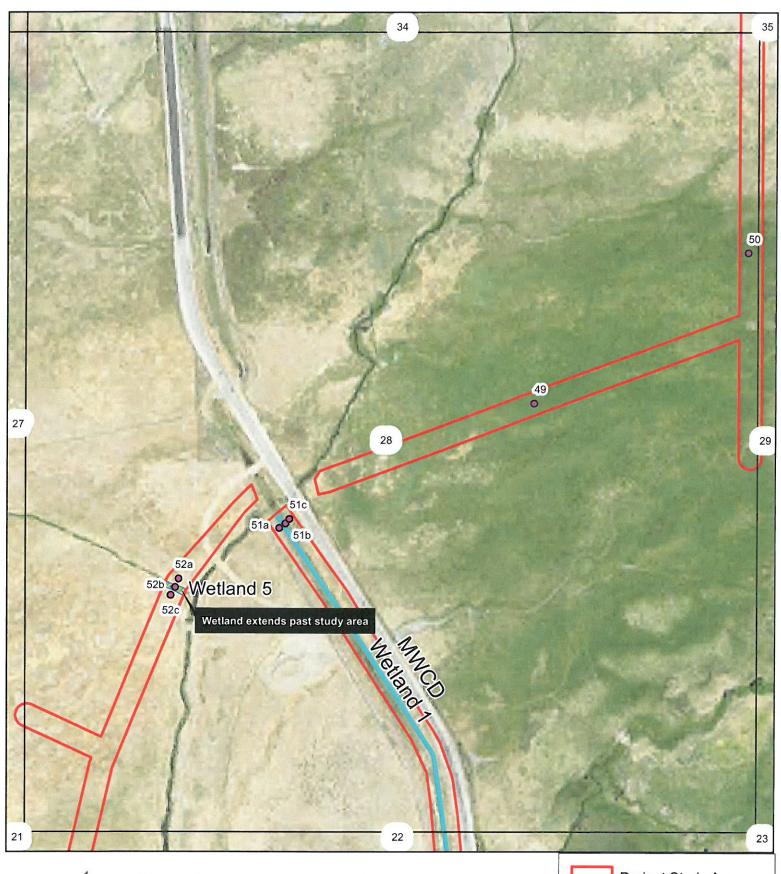
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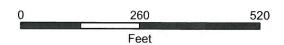
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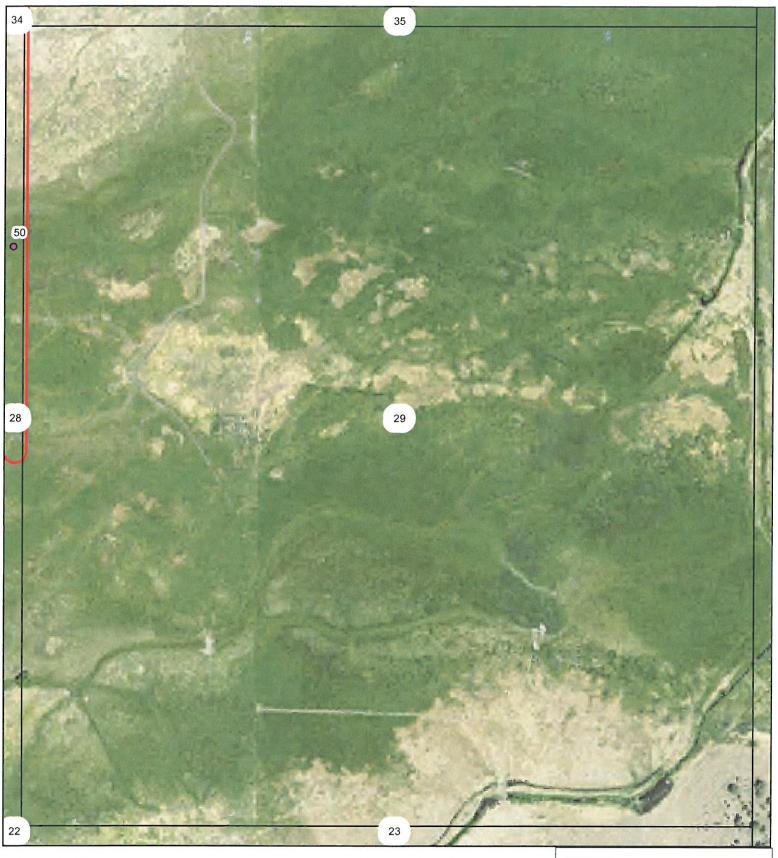
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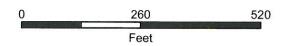
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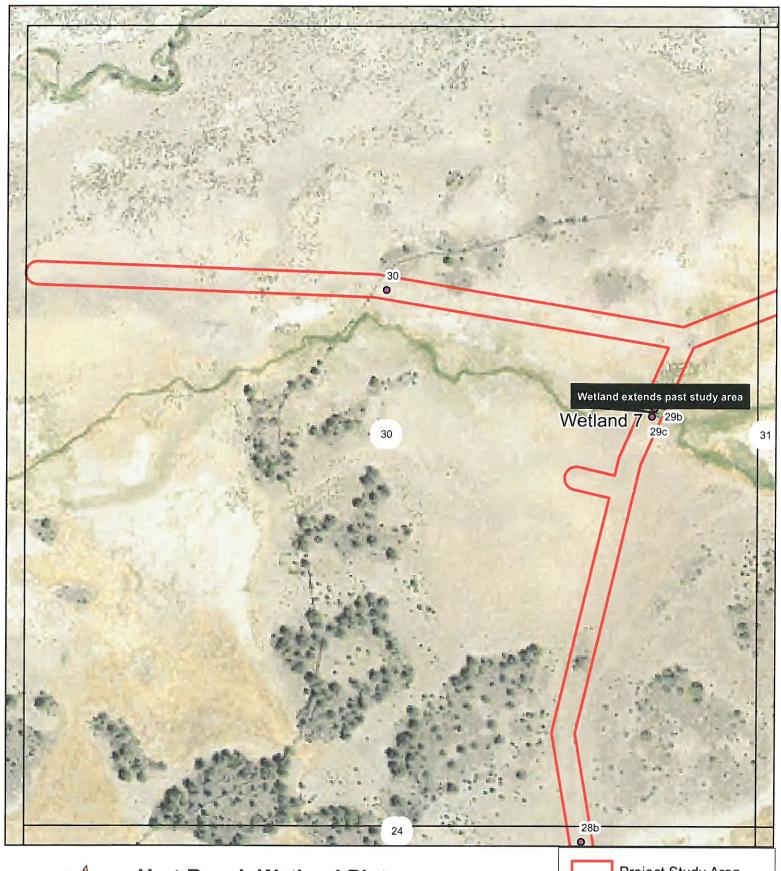
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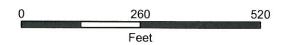
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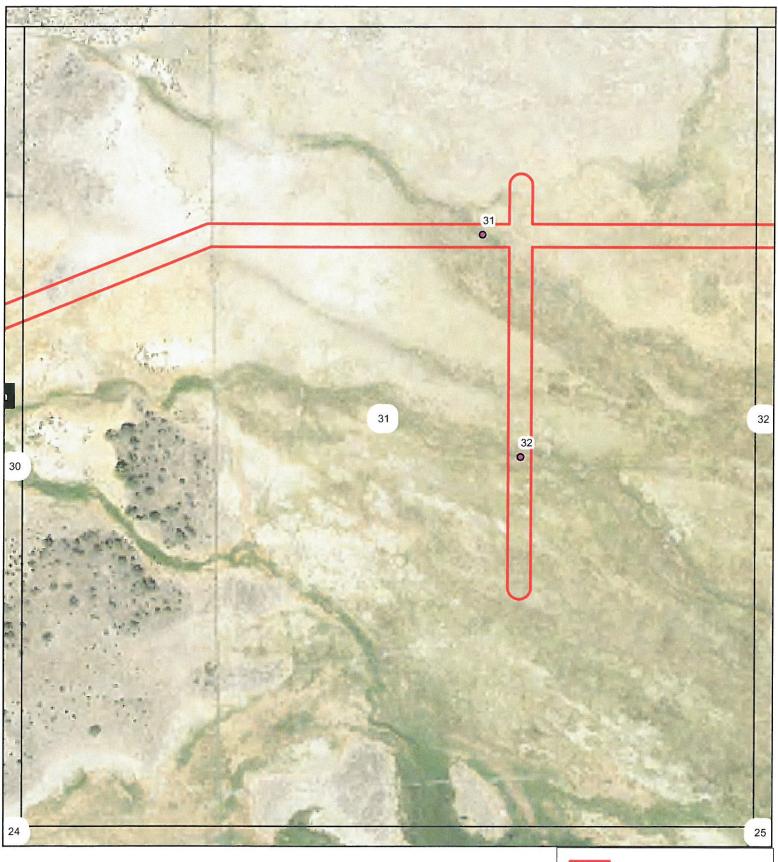
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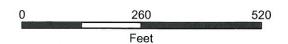
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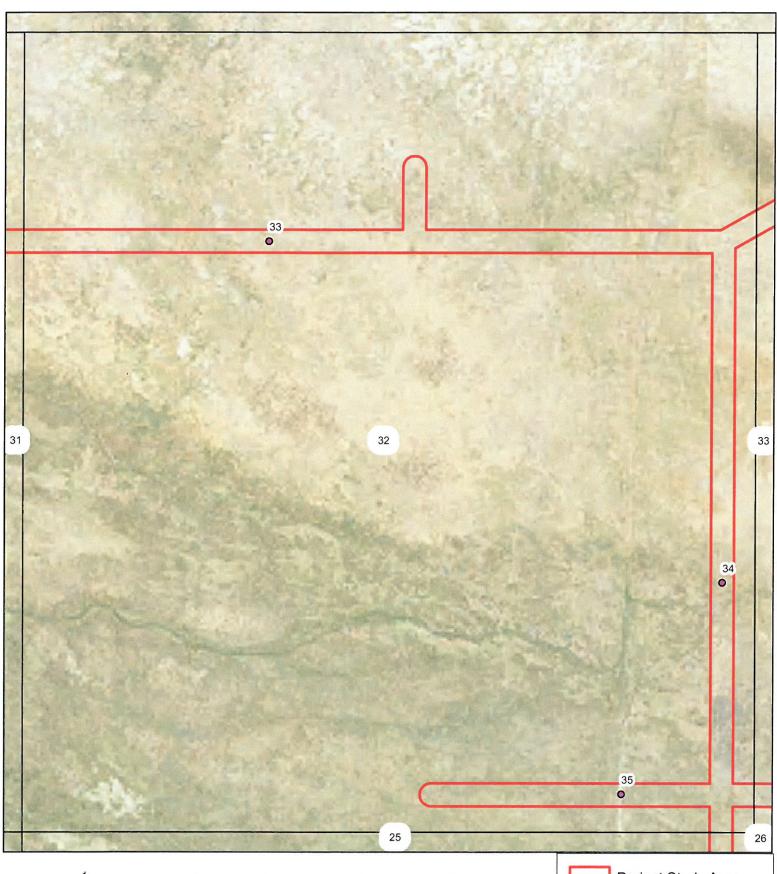
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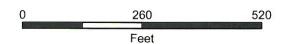
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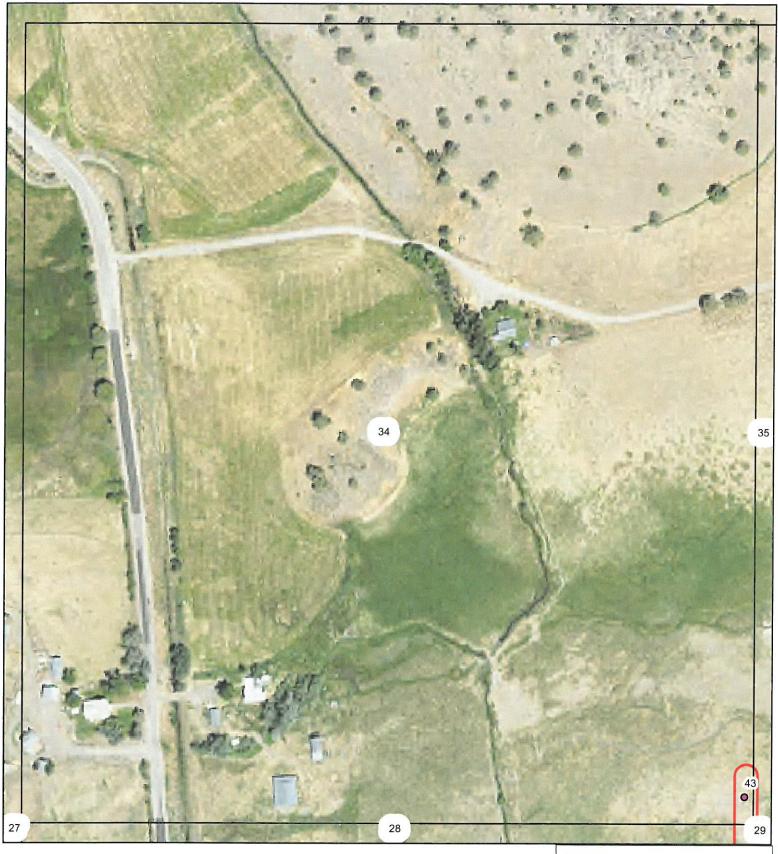
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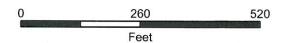
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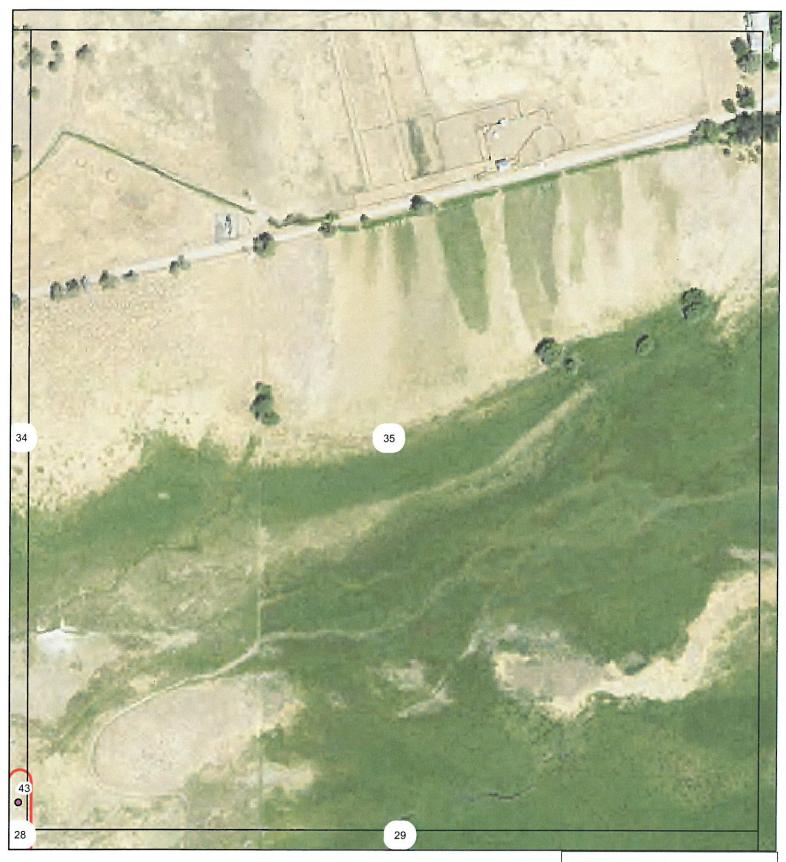
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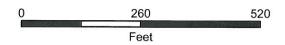
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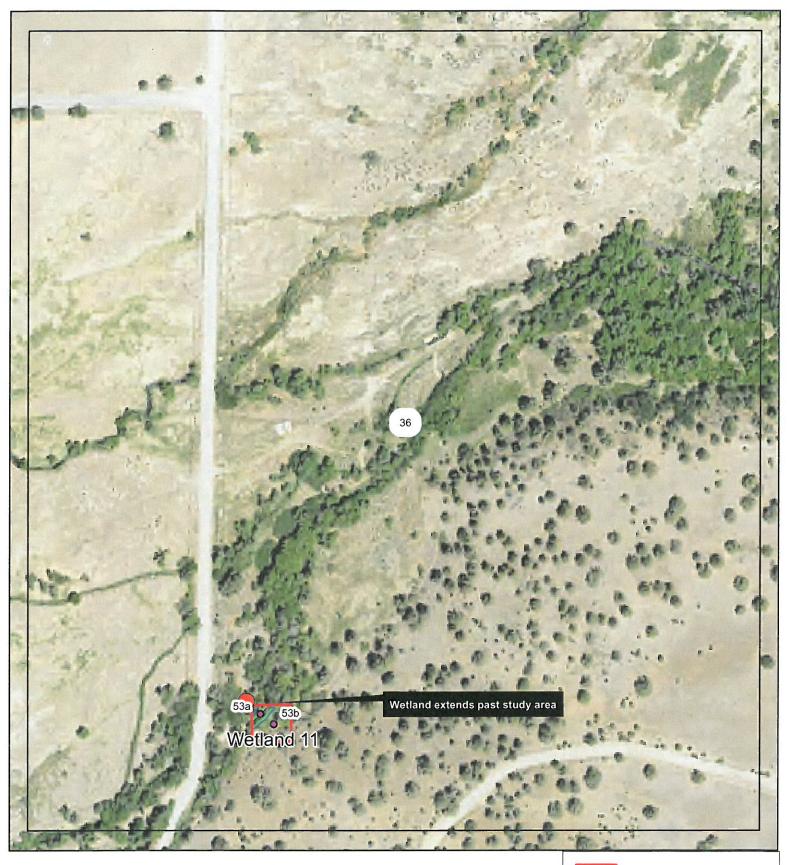
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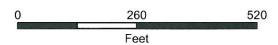
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Appendix B Data Forms

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

Investigator(s): Landform (hillslope, terrace, etc.): Subregion (LRR): MLRA 22R Soil Map Unit Name: Are climatic / hydrologic conditions on the site type Are Vegetation Are Vegetation Soil Or Hydrologic SUMMARY OF FINDINGS — Attach site Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Yes Hydric Soil Present? Wetland Hydrology Present? Remarks:	Section, Township, Range: Local relief (concave, converted) Lat: 12,389933 Long: Local for this time of year? Yes X No significantly disturbed? Are gy No naturally problematic? Letter Management of Year? Yes X No No X Is the Sampled Area we No X No	Ing Point: 45 N K5 W Sect (12+3) Ex, none): Convey Slope (%): 621 Datum: NAN & 3 NWI classification: NAN & 3 NWI classification: NAN & 3 "Normal Circumstances" present? Yes X No (If needed, explain any answers in Remarks.) t locations, transects, important features, etc. ithin a Wetland? Yes No X
aite	chibank on sa	reboush hillside
VEGETATION - Use scientific names		J
Tree Stratum (Plot size:) 1 2 3 4	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:) 1. 2. 3. 4. 5. Herb Stratum (Plot size: [m²] 1. Centaurea solisti jalka 2. 3.	= Total Cover = Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species
3	1904 (F. 1904)	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.		W. C. Hallinger
% Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
Remarks:		

SOIL							इसिया शानिक है जो जी	11/
SUIL Profile Desi	crintion: (Describe to	o the depth	needed to docu	ment the indi	cator or con	firm the a	bsence of indicators.	
Depth	Matrix	o uno copun		Redox Featu	ıres			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-11	2.54R6/2	100					loam	
11-18	2.54R6/3	100					2.Dam	
11-13	01.5 1 K U 13	100						
				·				
¹ Type: C=C	Concentration, D=Depl	etion, RM=R	educed Matrix, C	S=Covered or	Coated San		² Location: PL=Pore	
Hydric Soi	il Indicators: (Applic	able to all L	RRs. unless oth	erwise noted	.}	Ind	icators for Problemati	ic Hydric Soils³:
Histoso			Sandy Redox (•		2 cm Muck (A10)	i
	Epipedon (A2)	===	Stripped Matrix	(S6)		_	Red Parent Material (T	F2)
Black t	listic (A3)		Loamy Mucky I	Mineral (F1) (6	except MLRA	A 1)	Very Shallow Dark Sur	
Hydrog	en Sulfide (A4)		Loamy Gleyed	Matrix (F2)			Other (Explain in Rema	arks)
	ed Below Dark Surfac	e (A11)	Depleted Matrix Redox Dark Su	k (F3)			3Indicators of hydrophy	viic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)		Depleted Dark	nace (ro) Surface (F7)			wetland hydrology mus	st be present,
	Gleyed Matrix (S4)	_	Redox Depress				unless disturbed or pro	obiematic
								1
Restrictive L	ayer (if present):					_		1
Type:					Hydric Soil	Present?	Yes	No
Depth (inc	ches):							
Remarks:								
	_	'						
	ŗ	7 M						
	,	OW	in court	2)(2			_	
	<u> </u>	יטויקנ	dicate	2)(2				
HYDROLOG		101170	21 cate	2)(2				
HYDROLOG Wetland Hyd	GY Irology Indicators:						and an indicator (2 or m	nore required)
Wetland Hvd	GY		neck all that apply	·)	10) (event	Seco	ndary Indicators (2 or r	more required)
Wetland Hyd Primary Indic	GY Irology Indicators: ators (minimum of one		neck all that apply Water-Stair	r) ned Leaves (B	39) (except	·	Vater-Stained Leaves (I	more required) B9) (MLRA 1, 2,
Wetland Hyd Primary Indic Surface W	GY Irology Indicators: ators (minimum of one /ater (A1)		neck all that apply Water-Stair	r) ned Leaves (B , 4A, and 4B)	9) (except		Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10)	B9) (MLRA 1, 2 ,)
Wetland Hyd Primary Indic Surface W High Wate	GY Irology Indicators: ators (minimum of one Vater (A1) er Table (A2)		meck all that apply Water-Stair MLRA 1, 2 Salt Crust (Aquatic Inv	r) ned Leaves (B , 4A, and 4B) B11) ertebrates (B'	13)		Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iry-Season Water Table	B9) (MLRA 1, 2,) e (C2)
Wetland Hyd Primary Indic	GY Irology Indicators: ators (minimum of one /ater (A1) er Table (A2) n (A3)		water-Stair MLRA 1, 2 Salt Crust (Aquatic Inv	r) ned Leaves (B , 4A, and 4B) B11) ertebrates (B' Sulfide Odor (G	13) C1)		Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10)	B9) (MLRA 1, 2,) e (C2)
Wetland Hyd Primary Indic Surface W High Wate Saturation Water Mai	GY Irology Indicators: ators (minimum of one /ater (A1) ar Table (A2) n (A3) rks (B1)		water-Stair MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R	r) ned Leaves (B 4A, and 4B) B11) ertebrates (B' Sulfide Odor (6 hizospheres a	13) C1)	- V	Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iry-Season Water Table Iry-Season Water Table Iry-Season Visible on Ae	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Wetland Hyd Primary Indic Surface W High Wate Saturation Water Mai	Irology Indicators: ators (minimum of one /ater (A1) er Table (A2) h (A3) rks (B1) Deposits (B2)		meck all that apply Water-Stain MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Roots (C3)	ned Leaves (B , 4A, and 4B) (B11) (ertebrates (B' Sulfide Odor (6 hizospheres a	13) C1) Ilong Living	V V V V V V V V V V	Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iry-Season Water Table Iry-Season Water Table Iry-Season Water Table Iry-Season (District (Distri	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Wetland Hyd Primary Indic Surface W High Wate Saturation Water Mai	Irology Indicators: ators (minimum of one /ater (A1) er Table (A2) h (A3) rks (B1) Deposits (B2)		meck all that apply Water-Stain MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Roots (C3) Presence of	ned Leaves (B , 4A, and 4B) B11) ertebrates (B' Sulfide Odor (6 hizospheres a	13) C1) Ilong Living on (C4)	V V V V V V V V V V	Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iry-Season Water Table Iry-Season Water Table Iry-Season Visible on Ae	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Wetland Hyd Primary Indic Surface W High Wate Saturation Water Mai Sediment Drift Depo	Irology Indicators: ators (minimum of one /ater (A1) er Table (A2) h (A3) rks (B1) Deposits (B2)		meck all that apply Water-Stain MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Roots (C3) Presence of	ned Leaves (B , 4A, and 4B) (B11) (ertebrates (B' Sulfide Odor (6 hizospheres a	13) C1) Ilong Living on (C4)		Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iry-Season Water Table Iry-Season Water Table Iry-Season Water Table Iry-Season (District (Distri	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Wetland Hyd Primary Indic Surface W High Wate Saturation Water Mai Sediment Drift Depo	Irology Indicators: ators (minimum of one vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) esits (B3)		meck all that apply Water-Stain MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Roots (C3) Presence c Recent Iron Soils (C6) Stunted or	ned Leaves (B , 4A, and 4B) B11) ertebrates (B' Sulfide Odor (6 hizospheres a	13) C1) atong Living on (C4) a Tilled	4000 S S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iry-Season Water Table aturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) AC-Neutral Test (D5)	B9) (MLRA 1, 2,) e (C2) rial imagery (C9)
Wetland Hyd Primary Indice Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat	Irology Indicators: ators (minimum of one vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4)		meck all that apply Water-Stain MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Roots (C3) Presence c Recent Iror Soils (C6) Stunted or (LRR A)	ned Leaves (B, 4A, and 4B) B11) ertebrates (B' Sulfide Odor (finizospheres and Reduced Iron Reduction in	13) C1) atong Living on (C4) a Tilled onts (D1)	4 D D S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (I A, and 4B) trainage Patterns (B10) try-Season Water Table aturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) prial (magery (C9)) 2)
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Wetland Hyd Primary Indice Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depo Surface S inundation Sparsely Water Water Table	Irology Indicators: ators (minimum of one vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) erits (B3) or Crust (B4) erits (B5) noll Cracks (B6) n Visible on Aerial Ima vegetated Concave S vations: er Present? Yes Present? Yes	e required; ch agery (B7) urface (B8)	Meck all that apply Water-Stair MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen 5 Oxidized R Roots (C3) Presence c Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (B, 4A, and 4B) B11) ertebrates (B' Sulfide Odor (i hizospheres a of Reduced Iron Reduction in Stressed Plar lain in Remark	13) C1) Idong Living on (C4) Tilled onts (D1) ks)		Vater-Stained Leaves (I A, and 4B) trainage Patterns (B10) try-Season Water Table aturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	B9) (MLRA 1, 2,) e (C2) prial (magery (C9)) 2)
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Wetland Hyd Primary Indic Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo Surface S inundation Sparsely Water Table Saturation Pr (includes cap	Irology Indicators: ators (minimum of one vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) soil Cracks (B6) n Visible on Aerial Ima Vegetated Concave S vations: er Present? Yes resent? Yes resent?	e required; che	meck all that apply Water-Stali MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Roots (C3) Presence c Recent Iror Soils (C6) Stunted or (LRR A) Other (Exp	r) ned Leaves (B, 4A, and 4B) B11) ertebrates (B' Sulfide Odor (Ghizospheres and Reduced Iron Reduction in Remark lain in Remark s):s):s):	13) C1) Itlong Living on (C4) Tilled onts (D1) ks) Wet	4 D D D S S S S S S S S S S S S S S S S	Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iray-Season Water Table Inaturation Visible on Ae Geomorphic Position (D Irainage Patterns (B10) Iray-Season Water Table Iray-Season Water	B9) (MLRA 1, 2,) e (C2) prial (magery (C9)) (2) (5) (LRR A) s (D7)
Wetland Hyd Primary Indic Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo Surface S inundation Sparsely Water Table Saturation Pr (includes cap	Irology Indicators: ators (minimum of one /ater (A1) ar Table (A2) a (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) soil Cracks (B6) ar Visible on Aerial Ima Vegetated Concave S vations: ar Present? Present? Yes Present? Yes Present? Yes	e required; che	meck all that apply Water-Stali MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Roots (C3) Presence c Recent Iror Soils (C6) Stunted or (LRR A) Other (Exp	r) ned Leaves (B, 4A, and 4B) B11) ertebrates (B' Sulfide Odor (Ghizospheres and Reduced Iron Reduction in Remark lain in Remark s):s):s):	13) C1) Itlong Living on (C4) Tilled onts (D1) ks) Wet	4 D D D S S S S S S S S S S S S S S S S	Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iray-Season Water Table Inaturation Visible on Ae Geomorphic Position (D Irainage Patterns (B10) Iray-Season Water Table Iray-Season Water	B9) (MLRA 1, 2,) e (C2) prial (magery (C9)) (2) (5) (LRR A) s (D7)
Wetland Hyd Primary Indic Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo Surface S inundation Sparsely Water Table Saturation Pr (includes cap	Irology Indicators: ators (minimum of one /ater (A1) ar Table (A2) a (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) soil Cracks (B6) ar Visible on Aerial Ima Vegetated Concave S vations: ar Present? Present? Yes Present? Yes Present? Yes	e required; che	Meck all that apply Water-Stali MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Roots (C3) Presence of Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp Depth (inchesing well, aerial ph	ned Leaves (B, 4A, and 4B) B11) ertebrates (B' Sulfide Odor (i hizospheres a of Reduced Iron Reduction in Stressed Plar lain in Remark s): s):	13) C1) c1) clong Living on (C4) conts (D1) ks) Wet	4 DD DD S	Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iray-Season Water Table Inaturation Visible on Ae Geomorphic Position (D Irainage Patterns (B10) Iray-Season Water Table Iray-Season Water	B9) (MLRA 1, 2,) e (C2) prial (magery (C9)) (2) (5) (LRR A) s (D7)
Wetland Hyd Primary Indice Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo Surface S inundation Sparsely Water Table Saturation Pr (includes cap Describe Reco	Irology Indicators: ators (minimum of one /ater (A1) ar Table (A2) a (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) soil Cracks (B6) ar Visible on Aerial Ima Vegetated Concave S vations: ar Present? Present? Yes Present? Yes Present? Yes	e required; che	Meck all that apply Water-Stali MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Roots (C3) Presence of Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp Depth (inchesing well, aerial ph	ned Leaves (B, 4A, and 4B) B11) ertebrates (B' Sulfide Odor (i hizospheres a of Reduced Iron Reduction in Stressed Plar lain in Remark s): s):	13) C1) c1) clong Living on (C4) conts (D1) ks) Wet	4 DD DD S	Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iray-Season Water Table Inaturation Visible on Ae Geomorphic Position (D Irainage Patterns (B10) Iray-Season Water Table Iray-Season Water	B9) (MLRA 1, 2,) e (C2) prial (magery (C9)) (2) (5) (LRR A) s (D7)
Wetland Hyd Primary Indice Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo Surface S inundation Sparsely Water Table Saturation Pr (includes cap Describe Reco	Irology Indicators: ators (minimum of one /ater (A1) ar Table (A2) a (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) soil Cracks (B6) ar Visible on Aerial Ima Vegetated Concave S vations: ar Present? Present? Yes Present? Yes Present? Yes	e required; che	meck all that apply Water-Stali MLRA 1, 2 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Roots (C3) Presence c Recent Iror Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (B, 4A, and 4B) B11) ertebrates (B' Sulfide Odor (i hizospheres a of Reduced Iron Reduction in Stressed Plar lain in Remark s): s):	13) C1) c1) clong Living on (C4) conts (D1) ks) Wet	4 DD DD S	Vater-Stained Leaves (I A, and 4B) Irainage Patterns (B10) Iray-Season Water Table Inaturation Visible on Ae Geomorphic Position (D Irainage Patterns (B10) Iray-Season Water Table Iray-Season Water	B9) (MLRA 1, 2,) e (C2) prial (magery (C9)) (2) (5) (LRR A) s (D7)

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

	ATTOR DATA FORIM - Western	Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch	City/County Siski Voy P	8/22/2-42
Applicant/Owner: Hart Ranch	State: CA	Sampling Date: 0/25/2010
Investigator(s): Annua Kano	Section Township Donner	Ding Point: 6 Sect 1, 2 + 3
Landform (hillslope, terrace, etc.): bills	OO Complete Section Complete C	· DN, KSW Sect 1,2+3
Subregion (LRR): MLRA 22.2	Local relief (concave, convi	ex, none): Concaue Slope (%):
Soil Map Unit Name:	Tar. Itania and a groud:	ex, none): CONCAU Slope (%): 2
Are climatic / hydrologic conditions on the site t	handani for the st	NWI classification:
Are Vegetation	No	(If no, explain in Remarks.)
Are Vegetation Soil , or Hydro	logy No significantly disturbed? Are	"Normal Circumstances" present? Yes X No
, or Hydro	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach s	ite man chaudes comulting a	44
Hydrophytic Vegetation Present? Yes V	No	t locations, transects, important features, et
Hydric Soil Present? Yes Wetland Hydrology Present? Yes		rithin a Wetland? Yes No
	_ No	/ithin a Wetland? Yes No
Remarks:		
*	\ * \ \ .	
	GITON	<u></u>
VEGETATION Has selected		
VEGETATION - Use scientific name:	s of plants.	
Tree Stratum (Plot size:	Absolute Dominant Indicator	Dominance Test worksheet:
	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2. 3. 4.		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		Percent of Dominant Species
		That Are OBL, FACW, or FAC:(A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x 1 =
		FACW species x 2 =
- Th.		
		1
	= Total Cover	FACU species x 4 =
lerb Stratum (Plot size:)		UPL species x 5 =
	**	Column Totals: (A) (B)
	1.00	Prevalence Index = B/A =
		THE TOTAL OF THE T
		Hydrophytic Vegetation Indicators:
	The Target of the Control of the Con	** ·
	See a section of	1 - Rapid Test for Hydrophytic Vegetation
	78 of 25 to 25	2 - Dominance Test is >50%
	1. 英语,1885	A - 1 LEAGIGING ILINGY IS 73'0
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
	10 Name and	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	
oody Vine Stratuh (Plot size:	= Total Cover	indicators of hydric soil and wetland hydrology must
	L	be present, unless disturbed or problematic.
	7. 242	And and analysis of
		Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vogototlan
	- none 1 - 1 - 1 - 1 - 1	Present? Yes No
market	UPEN Watter	
marks: Problematic	nel 5 abrupt edge) sed nottony - niparian	
7100	(book) things (2)	
WAR CINCHAM	ma a country and	alongitch
(0)	mel we about 1000) sed pottchy - niparian	JOI14

ioil .	Satapling Politi
Profile Description: (Describe to	the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix	Redux-readiles
(inches) Color (moist)	% Color (moist) % Type Loc
	100 loam
6-18 2.542611	90 54R416 PC Sand
 -	
	otion RM-Reduced Matrix CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
¹ Type: C=Concentration, D=Deple	Salli, Alvi-Neddebb Matrix, 00
II. data Call Indicators, (Applica	able to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ³ :
Hydric Son Indicators: (Applica	able to all Little, dilloss suitantes in the little
Histosol (A1)	· · · · · · · · · · · · · · · · · · ·
Histic Epipedon (A2)	
Black Histic (A3)	County Made (1 1) (and a 1)
Hydrogen Sulfide (A4)	boarry croyer many ()
Depleted Below Dark Surface	(A11) Depleted Matrix (F3) Redox Dark Surface (F6) Redox Dark Surface (F6) 3Indicators of hydrophytic vegetation and
Thick Dark Surface (A12)	the state of the s
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present, Redox Depressions (F8) unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redux Depressions (1 0)
Restrictive Layer (if present):	Hydric Soil Present? Yes No
Type:	Hydric Soil Present
Depth (inches):	
emarks:	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	required; check all that apply) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one	Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
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Project/Site: HANKanch	city/county: Siskiyou Co	Sampling Date: 8/23/2010
Applicant/Owner: Hart Kanca	State CA Sample	line Polety
Investigator(s):	Section, Township, Range:	45N REW SPIEL 242
Landform (missippe, terrace, etc.): Landform	l ocal relief (concave, conve	y popole (DO) tak
Subregion (LRR): WILNA ZZR	Lat-122, 390016 Long: 41,10	Datum: NAN 8.3
Soil Map Unit Name:		NWI classification:
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes X No	(If no, explain in Remarks.)
Are vegetation, Soil, or Hydrolog	BY NO significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrolog	y No naturally problematic?	(If needed, explain any answers in Remarks.)
CHMMADY OF FINDINGS		•
Hydrophytic Vegetation Present? Yes	e map showing sampling point	t locations, transects, important features, etc
Hydric Soil Present? Yes	No Is the Sampled Area wi	ithin a Wetland? Yes No _X
Remarks:	*	
T WITH TO		
VEGETATION - Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		(NB)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Davidson to Assess to Asse
		Prevalence Index worksheet:
1		Total % Cover of: Multiply by:
3.		OBL species x1 =
4		FACW species x2 =
5.		FAC species x3 =
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: W	= Total Cover	UPL species <u>40</u> x 5 = <u>700</u>
1. Centanuea Sastition	120 11 (10)	Column Totals: (A) 700(B)
2,	TO A MAPE	Prevalence Index = B/A = 50
3.		Prevalence Index = B/A =
4.		Hydrophytic Vegetation Indicators:
5.	- Extra Section	Ph.
R	heat a Michig	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
7.	73.45 2 20.65.3	3 - Prevalence Index is ≤3.0¹
B	**************************************	4 - Morphological Adaptations ¹ (Provide supporting
9.		data in Remarks or on a separate sheet)
10.		5 - Wetland Non-Vascular Plants ¹
11,		Problematic Hydrophytic Vegetation¹ (Explain)
	40 = Total Cover	¹indicators of hydric soil and wetland hydrology must
Woody Vine Shatum (Plot size:)		be present, unless disturbed or problematic.
1.		Windows Life Web
2.	to the the second	
% Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum		Present? Yes No
	1	
Remarks:		
		į

SOIL						इहारम्याम् हर्ना हो	
Profile Des		to the depth	needed to docum	ent the indicato	r or confirm the	absence of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	Redox Features W Ty	pe Loc²	Texture	Remarks
D-12	8.54k6/3	100	Color (Intolot)			loam	
							
12-18	2,54R 6/2	106				loam	
					_		
							
							_
							
						•	
¹ Type: C=C	Concentration, D=Dep	oletion, RM=R	educed Matrix, CS	=Covered or Coa	ted Sand Grains.	² Location: PL=Pore L	ining, M=Matrix.
	il Indicators: (Appli	_				dicators for Problematic	Hydric Solls ³ :
· =	•	Caple to all L	Sandy Redox (S		•11	2 cm Muck (A10)	
Histoso	oi (A1) Epipedon (A2)	V	Stripped Matrix (,		Red Parent Material (TF	2)
Black H	Histic (A3)		Loamy Mucky Mi	ineral (F1) (exce	pt MLRA 1)	Very Shallow Dark Surfa	ace (TF12)
Hydrog	gen Sulfide (A4) ed Below Dark Surfa	(444) —	Loamy Gleyed M Depleted Matrix (Other (Explain in Remai	KS)
	eg Below Dark Surial Dark Surface (A12)	CE (A11)	Redox Dark Surf			3Indicators of hydrophyti	c vegetation and
Sandy	Mucky Mineral (S1)		Depleted Dark Si	urface (F7)		wetland hydrology must	be present,
Sandy	Gleyed Matrix (S4)		Redox Depression	ons (F8)		unless disturbed or prob	nematic
Restrictive L	ayer (if present):						~
Туре:				Hyd	fric Soil Present	? Yes	No
Depth (inc	ches):						· · · · · · · · · · · · · · · · · · ·
Remarks:							
	(nnim	di cator	<u> </u>			
HYDROLOG							
Wetland Hyd							
	ators (minimum of on	e required: ch	neck all that apply)	<u></u>	Sec	ondary Indicators (2 or mo	ore required)
1º Hilliery Holo	ators (minimum of on	ne required; ch	Water-Staine	ed Leaves (B9) (e	xcept	ondary Indicators (2 or mo	ore required)
Surface W	ators (minimum of on /ater (A1)	ne required; ch	Water-Staine MLRA 1, 2, 4	IA, and 4B)	xcept	Water-Stained Leaves (B: 4A, and 4B)	ore required) 3) (MLRA 1, 2,
Surface W	ators (minimum of on /ater (A1) er Table (A2)	ne required; ch	Water-Staine MLRA 1, 2, 4 Sait Crust (B	IA, and 4B) (1)	xcept	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table	9) (MLRA 1, 2, (C2)
Surface W	ators (minimum of on /ater (A1) er Table (A2) i (A3)	ne required; ch	Water-Staine MLRA 1, 2, 4 Salt Crust (B Aquatic Inver Hydrogen Su	IA, and 4B) 11) rtebrates (B13) Ilfide Odor (C1)	xcept	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10)	9) (MLRA 1, 2, (C2)
Surface W High Wate Saturation Water Mai	ators (minimum of on /ater (A1) er Table (A2) n (A3) rks (B1)	ne required; ch	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi	IA, and 4B) 11) rtebrates (B13)	Living	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri	(C2) (Microsoft) (C2) (C9)
Surface W High Wate Saturation Water Mai	ators (minimum of on /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2)	e required; ch	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhit Roots (C3)	IA, and 4B) 11) rtebrates (B13) lifide Odor (C1) zospheres along	Living	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table	(C2) (Microsoft) (C2) (C9)
Surface W High Wate Saturation Water Mai Sediment Drift Depo	ators (minimum of on /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3)	e required; ch	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhit Roots (C3) Presence of Recent Iron I	IA, and 4B) 11) rtebrates (B13) Ilfide Odor (C1)	Living	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3)	(C2) (Microsoft) (C2) (C9)
Surface W High Wate Saturation Water Mai Sediment Drift Depo	ators (minimum of on /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2)	ne required; ch	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhit Roots (C3) Presence of Recent Iron F Soils (C6)	IA, and 4B) 11) Itebrates (B13) Iffide Odor (C1) zospheres along Reduced Iron (C- Reduction in Tille	Living 4)	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2	(C2) (Microsoft) (C2) (C9)
Surface W High Wate Saturation Water Mai Sediment Drift Depo	ators (minimum of on /ater (A1) or Table (A2) of (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4)	ne required; ch	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhit Roots (C3) Presence of Recent Iron F Soils (C6)	IA, and 4B) 11) tebrates (B13) lifide Odor (C1) zospheres along Reduced Iron (C-	Living — 4) — 41)	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) (MLRA 1, 2, (C2) (C9) (C9)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo	ators (minimum of on /ater (A1) or Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6)		Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhit Roots (C3) Presence of Recent Iron I Soits (C6) Stunted or St (LRR A)	IA, and 4B) 11) Itebrates (B13) Iffide Odor (C1) zospheres along Reduced Iron (C- Reduction in Tille	Living — 4) — 41)	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5)	(C2) (MLRA 1, 2, (C2) (C9) (C9)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo Surface S Inundation	ators (minimum of on /ater (A1) ar Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) n Visible on Aerial Im	agery (B7)	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhit Roots (C3) Presence of Recent Iron I Soits (C6) Stunted or St (LRR A)	IA, and 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C- Reduction in Tille tressed Plants (C-	Living — 4) — 41)	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) (MLRA 1, 2, (C2) (C9) (C9)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo Surface S Inundation	ators (minimum of on /ater (A1) or Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6)	agery (B7)	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhit Roots (C3) Presence of Recent Iron I Soits (C6) Stunted or St (LRR A)	IA, and 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C- Reduction in Tille tressed Plants (C-	Living — 4) — 41)	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) (MLRA 1, 2, (C2) (C9) (C9)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo Surface S Inundation Sparsely V	ators (minimum of on /ater (A1) or Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) of Visible on Aerial Im /egetated Concave \$	agery (B7)	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhit Roots (C3) Presence of Recent Iron F Soils (C6) Stunted or St (LRR A) Other (Expla	IA, and 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C- Reduction in Tille tressed Plants (D in in Remarks)	Living — 4) — 41)	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) (MLRA 1, 2, (C2) (C9) (C9)
Surface W High Water Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo Surface S Inundation Sparsely V Field Observe Surface Water	ators (minimum of on /ater (A1) or Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) of Visible on Aerial Im /egetated Concave servations:	agery (B7) Surface (B8)	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Roots (C3) Presence of Recent Iron F Soils (C6) Stunted or St (LRR A) Other (Expla	IA, and 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (Care) Reduction in Tille tressed Plants (Danie in In Remarks)	Living — 4) d	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) al imagery (C9) (LRR A) (D7)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat iron Depo Surface S Inundation Sparsely V Field Observ Surface Wate Water Table	ators (minimum of on /ater (A1) ar Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) n Visible on Aerial Im Vegetated Concave servations: ar Present? Yes Present? Yes	agery (B7)	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhit Roots (C3) Presence of Recent Iron F Soils (C6) Stunted or St (LRR A) Other (Expla	IA, and 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (Care) Reduction in Tille tressed Plants (Danie in In Remarks)	Living — 4) d	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) (MLRA 1, 2, (C2) al imagery (C9) (LRR A) (D7)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely V Field Observ Surface Wate Water Table S Saturation Pr (Includes cap	ators (minimum of on /ater (A1) ar Table (A2) ar (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) ar Visible on Aerial Im Vegetated Concave site of the concave site o	agery (B7) Surface (B8) No	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Roots (C3) Presence of Recent Iron F Soils (C6) Stunted or St (LRR A) Other (Expla	IA, and 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Tille tressed Plants (C in in Remarks)	Living 4) d Wetland Hyd	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) al imagery (C9) (LRR A) (D7)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely V Field Observ Surface Wate Water Table S Saturation Pr (Includes cap	ators (minimum of on /ater (A1) ar Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) n Visible on Aerial Im Vegetated Concave solutions: ar Present? Yes Present? Yes	agery (B7) Surface (B8) No	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Roots (C3) Presence of Recent Iron F Soils (C6) Stunted or St (LRR A) Other (Expla	IA, and 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Tille tressed Plants (C in in Remarks)	Living 4) d Wetland Hyd	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) al imagery (C9) (LRR A) (D7)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely V Field Observ Surface Wate Water Table S Saturation Pr (Includes cap	ators (minimum of on /ater (A1) ar Table (A2) ar (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) ar Visible on Aerial Im Vegetated Concave site of the concave site o	agery (B7) Surface (B8) No	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Roots (C3) Presence of Recent Iron F Soils (C6) Stunted or St (LRR A) Other (Expla	IA, and 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Tille tressed Plants (C in in Remarks)	Living 4) d Wetland Hyd	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) al imagery (C9) (LRR A) (D7)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatior Sparsely V Field Observ Surface Wate Water Table S Saturation Pr (includes cap Describe Reco	ators (minimum of on /ater (A1) ar Table (A2) ar (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) ar Visible on Aerial Im Vegetated Concave site of the concave site o	agery (B7) Surface (B8) No	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Roots (C3) Presence of Recent Iron F Soils (C6) Stunted or St (LRR A) Other (Expla	IA, and 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Tille tressed Plants (C in in Remarks)	Living 4) d Wetland Hyd	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) al imagery (C9) (LRR A) (D7)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely V Field Observ Surface Wate Water Table S Saturation Pr (includes cap	ators (minimum of on /ater (A1) ar Table (A2) ar (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) ar Visible on Aerial Im Vegetated Concave site of the concave site o	agery (B7) Surface (B8) No	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Roots (C3) Presence of Recent Iron Soils (C6) Stunted or St (LRR A) Other (Explain Depth (inches): Depth (inches): Depth (inches):	IA, and 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (C- Reduction in Tille tressed Plants (C- in in Remarks)	Living 4) d Wetland Hyd	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) al imagery (C9) (LRR A) (D7)
Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatior Sparsely V Field Observ Surface Wate Water Table S Saturation Pr (includes cap Describe Reco	ators (minimum of on /ater (A1) ar Table (A2) ar (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) ar Visible on Aerial Im Vegetated Concave site of the concave site o	agery (B7) Surface (B8) No	Water-Staine MLRA 1, 2, 4 Sait Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Roots (C3) Presence of Recent Iron Soils (C6) Stunted or St (LRR A) Other (Explain Depth (inches): Depth (inches): Depth (inches):	IA, and 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Tille tressed Plants (C in in Remarks)	Living 4) d Wetland Hyd	Water-Stained Leaves (8: 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aerl Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) al imagery (C9) (LRR A) (D7)

Applicant/Owner: Investigator(s): Landform (hillslope, terrace, etc.): Subregion (LRR): MLRA 22B Soil Map Unit Name: Are climatic / hydrologic conditions on the site type Are Vegetation Are Vegetation Summary OF FINDINGS – Attach site Hydrophytic Vegetation Present? Hydroc Soil Present? Yes Hydric Soil Present?	State: CA Sample Section, Township, Range: Local relief (concave, converted Later 182, 386570 Long: 4116 April 2000 M Significantly disturbed? Are 199 No naturally problematic?	Ing Point: So Sect 1, 2 + 3 x, none): Convey: Slope (%): NWI classification: (If no, explain in Remarks.) "Normal Circumstances" present? Yes X No (If needed, explain any answers in Remarks.) t locations, transects, important features, etc.
VEGETATION - Use scientific names	of plants	
Tree Stratum (Plot size:) 1 2 3 4	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A) (B)
Sapling/Shrub Stratum (Plot size:) 1. 2. 3. 4. 5. Herb Stratum (Plot size: M72) 1. Centaurea Solsh Inlocation Concreus 2. Lymus cinereus 3.	= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FAC species x3 = 60 FACU species x4 = UPL species 30 x5 = 50 Column Totals: 60 (A) 610 (B) Prevalence Index = B/A =
4. 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size:)	A STATE OF THE STA	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. % Bare Ground in Herb Stratum 50	= Total Cover	Hydrophytic Vegetation Present? Yes No
ronans.		

SOIL	Savalitation 20
Profile Description: (Describe to the depth needed to document	the indicator or confirm the absence of indicators.)
Depth Matrix Rec (inches) Color (moist) % Color (moist)	dox Features W Type Loc² Texture Remarks
0-11 2.54R6/3 100	loam
	I DOWN
11-18 23/2 62 100	
	4.1
	·
¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Co	overed or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwis	se noted.) Indicators for Problematic Hydric Soils ³ :
	2 cm Muck (A10)
Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3) Loamy Mucky Miner	al (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Loamy Gleyed Matrix (F3) Depleted Matrix (F3)	
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface	
Sandy Mucky Mineral (S1) Depleted Dark Surfa	ce (F7) wetland hydrology must be present,
Sandy Gleyed Matrix (S4) Redox Depressions	(F8) unless disturbed or problematic
Restrictive Layer (if present):	V .
Туре:	Hydric Soil Present? Yes No
Depth (Inches):	
Remarks:	
no indi	cators
1462-14	cators
HYDROLOGY	cators
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L	Secondary Indicators (2 or more required) eaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L Surface Water (A1) MLRA 1, 2, 4A,	Secondary Indicators (2 or more required) eaves (B9) (except and 4B) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L Surface Water (A1) High Water Table (A2) MLRA 1, 2, 4A, Salt Crust (B11)	Secondary Indicators (2 or more required) eaves (B9) (except and 4B) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Water A1, 2, 4A, Salt Crust (B11) Aquatic Inverteb	Secondary Indicators (2 or more required) eaves (B9) (except and 4B) Painage Patterns (B10) Dry-Season Water Table (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Hydrogen Sulfide Oxidized Rhizos	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B11) Saturation (A3) Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Hydrogen Sulfide Oxidized Rhizos	Secondary Indicators (2 or more required) eaves (B9) (except and 4B) rates (B13) e Odor (C1) pheres along Living duced Iron (C4) uction in Tilled Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Wetland Hydrogen Sulfide Oxidized Rhizos Roots (C3) Presence of Rec	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Wetland Hydrogen Sulfide Oxidized Rhizos Recent Iron Red Soils (C6) Stunted or Stres	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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40.1-Danala	Sinking D	
Project/Site: #AV+ Kanch	city/county: Siskiyou Co	Sampling Date: 0/23/2010
	State: CA' Sampl	ing Point: 26
Landform (hillstone terrace etc.):	Section, Township, Range:	45N, R5W Sect 1,2+3
Landform (hillslope, terrace, etc.): hillslope Subregion (LRR): MLRA 228	Local relief (concave, conver	x, none): Con case Slope (%):
Soil Map Unit Name:	Lat: 122,3864BSLong: 41.6	
Are climatic / hydrologic conditions on the site typi	ical for this time of year? Vec. V	NWI classification:
Are Vegetation, Soil, or Hydrolog		(If no, explain in Remarks.) "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrolog	N/ N/O naturally problematic?	(If needed, explain any answers in Remarks.)
		t locations, transects, important features, etc
Trychophytic vegetation resempt tes	NO	\/
Wetland Hydrology Present? Yes	No Is the Sampled Area wi	ithin a Wetland? Yes X No
Remarks:	ih.	
VEGETATION - Use scientific names of	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3		Species Across All Strata: (B)
4,		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub-Stratum (Plot size:)	= 10tal Cover	Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x 1 =
3.		FACW species x 2 =
4		FAC species x3 =
5		FACU species x 4 =
1.2	= Total Cover	UPL species x 5 =
Herb Stratum (Plot size: 1772)		Column Totals: (A) (B)
1		
3.		Prevalence Index = B/A =
4.		Hydrophytic Vegetation Indicators:
5.	1877 (1888)	26.7
3.	Salth agriffs of C	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
7.		3 - Prevalence Index is ≤3.01
3.	Mary 10	4 - Morphological Adaptations ¹ (Provide supporting
9		data in Remarks or on a separate sheet)
0		5 - Wetland Non-Vascular Plants ¹
1		Problematic Hydrophytic Vegetation¹ (Explain)
Voody Vine Stratum (Plot size:)	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
-		St. Control of the state of the
	Total Committee	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation
Date Glouid iii i leib Stattiii	charrobrisphedge arsupataur ripation arsupataur ripation	Present? Yes / No
demarks:	chan obrief	W. Ind
omblemato a-	Landay riperio	austra
Pro Oyes & SA	arsy open water	divi

SOIL	्रह्मा श्री । इस्त्रा श्री	
Profile Description: (Describe to the	e depth needed to document the indicator or confirm the absence of indi	cators.)
Depth Matrix	Redox Features	Remarks
	% Color (moist) % Type' Loc² Texture	Remarks
0-5 2.5 726/3 10	<u> </u>	<u> </u>
5-18 2,54R6/19	5 54846 Sand	
0 /6 010/10-/	<u> </u>	
		<u> </u>
1Times Co-Consentation DeDopletion	n, RM≐Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: P	L=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable	to all LRRs, unless otherwise noted.) indicators for Pro-	blematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5) 2 cm Muck (A1)	0)
Histic Epipedon (A2)	Stripped Matrix (S6) Red Parent Ma	terial (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow D	ark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Other (Explain	in Remarks)
Depleted Below Dark Surface (A		ه بدین بر ر
Thick Dark Surface (A12)		ydrophytic vegetation and
Sandy Mucky Mineral (S1)		ogy must be present, d or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbe	d or problematic
Restrictive Layer (if present):	Ì	
	Hydric Soil Present? Yes	No
Type:	Tryuno don ricodiki	
Depth (inches):		
Remarks:		
	<i>F</i>	
		-
HADDOL OCA		
HYDROLOGY		
Wetland Hydrology Indicators:	uired: check all that apply) Secondary indicators	(2 or more required)
		s (2 or more required) eaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestry)	Water-Stained Leaves (B9) (except Water-Stained Le MLRA 1, 2, 4A, and 4B) 4A, and 4B)	eaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Water-Stained Leaves (B9) (except 4A, and 4B) Drainage Pattern	eaves (B9) (MLRA 1, 2, s (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Water-Stained Leaves (B9) (except 4A, and 4B) Drainage Pattern Dry-Season Water-Stained Leaves (B13)	eaves (B9) (MLRA 1, 2, s (B10) er Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B1) Aquatic Invertebrates (B13) Drainage Pattern Dry-Season Water Saturation Visible	eaves (B9) (MLRA 1, 2, s (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Water-Stained Leaves (B9) (except 4A, and 4B) Drainage Pattern Dry-Season Water Saturation Visible	eaves (B9) (MLRA 1, 2, es (B10) er Table (C2) e on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except AA, and 4B) Drainage Pattern Dry-Season Water Saturation Visible Geomorphic Pos	eaves (B9) (MLRA 1, 2, es (B10) er Table (C2) e on Aerial Imagery (C9) ition (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Water-Stained Leaves 4A, and 4B) Drainage Pattern Dry-Season Water Saturation Visible Saturation Visible Geomorphic Pos Shallow Aquitard	eaves (B9) (MLRA 1, 2, es (B10) er Table (C2) e on Aerial Imagery (C9) ition (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Water-Stained Leaves 4A, and 4B) Drainage Pattern Dry-Season Water Saturation Visible	eaves (B9) (MLRA 1, 2, es (B10) er Table (C2) e on Aerial Imagery (C9) ition (D2) (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B1) Drainage Pattern Dry-Season Water Saturation Visible Saturation Visible FAC-Neutral Tes	eaves (B9) (MLRA 1, 2, as (B10) ser Table (C2) e on Aerial Imagery (C9) eitlon (D2) (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Water-Stained Leaves (B9) (except Water-Stained Leaves (B13) Drainage Pattern Dry-Season Water Saturation Visible Saturation Visible Facomorphic Pos Shallow Aquitard FAC-Neutral Tes	eaves (B9) (MLRA 1, 2, as (B10) ser Table (C2) e on Aerial Imagery (C9) (D3) et (D5) and (D6) (LRR A)
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Applicant/Owner: Investigator(s): Landform (hillslope, terrace, etc.): Subregion (LRR): MLRA 22B Soil Map Unit Name: Are climatic / hydrologic conditions on the site typic Are Vegetation Are Vegetation Soil Or Hydrologic SUMMARY OF FINDINGS - Attach site Hydrophytic Vegetation Present? Hydric Soil Present? Yes N	Local relief (concave, converted: 120, 38545) Long: 100 Local for this time of year? Yes X No y No significantly disturbed? Are y No naturally problematic?	Ing Point: 45 N
	The Gridon	
Tree Stratum (Not size:) 1 2 3 4	of plants. Absolute Dominant Indicator % Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:) 1. 2. 3. 4. 5. Herb Stratum (Plot size:	= Total Cover = Total Cover 30 UPL Y	Prevalence index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FAC species x3 = FACU species x4 = UPL species x5 = 150 Column Totals: 30 (A) 150 (B) Prevalence index = B/A =
4		Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. % Bare Ground in Herb Stratum 70	= Total Cover	Hydrophytic Vegetation Present? Yes No

SOIL			3000 all 601. 6010	
Profile Description: (Describe to the depth needed to document the int	dicator or con	firm the abs	ence of indicators.)
Depth Matrix Redox Fea (inches) Color (moist) % Color (moist) %	Type ¹	Loc²	Texture	Remarks
0-10 2.54R6/3 100			loom	
10-18 2.54R 6/2 100			Inam	
10-10 01342-10-100			- Armin	
		 		
				
				11
	-			
	V			
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered of	or Coated San	d Grains.	Location: PL=Pore	Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise note	d.)	Indica	tors for Problemat	ic Hydric Solls³:
Histosol (A1) Sandy Redox (S5)	,		m Muck (A10)	
Histic Epipedon (A2) Stripped Matrix (S6)		Re	d Parent Material (1	
Black Histic (A3) Loamy Mucky Mineral (F1)	(except MLRA		ry Shallow Dark Su her (Explain in Rem	
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F3)		01	ner (Explain in Nem	latino)
Thick Dark Surface (A12) Redox Dark Surface (F6)			dicators of hydrophy	
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)	ı		tland hydrology mulless disturbed or pro	
Sandy Gleyed Matrix (S4) Redox Depressions (F8)	Υ	UFI	less disturbed or pri	Obternado
Restrictive Layer (if present):				N
Type:	Hydric Soil	Present?	Yes	No V
Depth (Inches):				<u>,,,</u>
Remarks:				
noindicators				
. LOWINGOUS				
HYDROLOGY Westland Hydrology Indicators:				
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Seconda	ary Indicators (2 or r	more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (B9) (except	Wate	er-Stained Leaves (more required) B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Surface Water (A1) MLRA 1, 2, 4A, and 4B	B9) (except	Wate 4A,	ary Indicators (2 or re- er-Stained Leaves (and 4B) nage Patterns (B10	B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Surface Water (A1) High Water Table (A2) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B	313)	Wate 4A, Drail Dry-	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Tabl	B9) (MLRA 1, 2,) e (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Surface Water (A1) High Water Table (A2) Salt Crust (B11) Saturation (A3) Water Marks (B1) Hydrogen Sulfide Odor	313) (C1)	Wate 4A, Drail Dry-	er-Stained Leaves (and 4B) nage Patterns (B10	B9) (MLRA 1, 2,) e (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Salt Crust (B11) Saturation (A3) Water Marks (B1) Hydrogen Sulfide Odor Oxidized Rhizospheres	313) (C1)	Wate 4A, 3 Drain Dry- Satu	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Tabl	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Sediment Deposits (B2) Prift Deposits (B3) Presence of Reduced In	313) (C1) along Living on (C4)	Wate 4A, and Drain Dry-Satu	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Tabl iration Visible on Ae	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Sediment Deposits (B2) Presence of Reduced in Recent Iron Reduction Algal Mat or Crust (B4) Iron Deposits (B5) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction Soils (C6) Stunted or Stressed Plate	313) (C1) along Living on (C4) n Tilled ants (D1)	Wate 4A, Drait Dry- Satu Geo Shat FAC	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Tabl Iration Visible on Ae morphic Position (D Illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 92)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Sediment Deposits (B2) Presence of Reduced in Recent Iron Reduction Algal Mat or Crust (B4) Iron Deposits (B5) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction Soils (C6) Stunted or Stressed Plate	313) (C1) along Living on (C4) n Tilled ants (D1)	Wate 4A, Drait Dry- Satu Geo Shat FAC	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Tabl Iration Visible on Ae morphic Position (D Illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 92)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B) High Water Table (A2) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B1) Water Marks (B1) Hydrogen Sulfide Odor Oxidized Rhizospheres Sediment Deposits (B2) Roots (C3) Drift Deposits (B3) Presence of Reduced in Recent Iron Reduction Soils (C6) Iron Deposits (B5) Stunted or Stressed Plate (LRR A) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	313) (C1) along Living on (C4) n Tilled ants (D1)	Wate 4A, Drait Dry- Satu Geo Shat FAC	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Tabl Iration Visible on Ae morphic Position (D Illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 92)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B1) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	313) (C1) along Living on (C4) n Tilled ants (D1)	Wate 4A, Drait Dry- Satu Geo Shat FAC	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Tabl Iration Visible on Ae morphic Position (D Illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 92)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Salt Crust (B11) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction in Solis (C6) Stunted or Stressed Plate (LRR A) Other (Explain In Remains) Field Observations: Surface Water Present? Yes No Depth (inches):	313) (C1) along Living on (C4) in Tilled unts (D1) rks)	Wate 4A, Drail Dry- Satu Geo Shal FAC	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Table ration Visible on Act morphic Position (D llow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummocks	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 92)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Salt Crust (B11) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Vater Table Present?	313) (C1) along Living on (C4) in Tilled unts (D1) rks)	Wate 4A, Drail Dry- Satu Geo Shal FAC	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Tabl uration Visible on Ae morphic Position (D llow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummock	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 03) (LRR A) s (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Salt Crust (B11) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B	313) (C1) along Living on (C4) in Tilled ants (D1) rks) Weti	Wate 4A, Drail Dry- Satu Geo Shal FAC Rais Fros	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Table ration Visible on Act morphic Position (D llow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummocks ogy Present? Yellow Present?	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 03) (LRR A) s (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Presence of neduced in Recent Iron Reduction in Remains (LRR A) Other (Explain in Remains) Depth (inches): Depth (inches): Saturation Present?	313) (C1) along Living on (C4) in Tilled ants (D1) rks) Weti	Wate 4A, Drail Dry- Satu Geo Shal FAC Rais Fros	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Table ration Visible on Act morphic Position (D llow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummocks ogy Present? Yellow Present?	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 03) (LRR A) s (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction in Solis (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema)	313) (C1) along Living on (C4) in Tilled ants (D1) rks) Weti	Wate 4A, Drail Dry- Satu Geo Shal FAC Rais Fros	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Table ration Visible on Act morphic Position (D llow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummocks ogy Present? Yellow Present?	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 03) (LRR A) s (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe) Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: Remarks:	313) (C1) along Living on (C4) in Tilled ants (D1) rks) Weti	Wate 4A, Drait Dry- Satu Geo Shat FAC Rais Fros	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Table ration Visible on Act morphic Position (D llow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummocks ogy Present? Yellow Present?	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 03) (LRR A) s (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe) Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: Remarks:	313) (C1) along Living on (C4) in Tilled ants (D1) rks) Weti	Wate 4A, Drait Dry- Satu Geo Shat FAC Rais Fros	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Table ration Visible on Act morphic Position (D llow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummocks ogy Present? Yellow Present?	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 03) (LRR A) s (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	313) (C1) along Living on (C4) in Tilled ants (D1) rks) Weti	Wate 4A, Drait Dry- Satu Geo Shat FAC Rais Fros	er-Stained Leaves (and 4B) nage Patterns (B10 Season Water Table ration Visible on Act morphic Position (D llow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummocks ogy Present? Yellow Agent (D6)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 03) (LRR A) s (D7)

40.12 Dans		wountains, valleys, and Coast Region
Project/Site: Hart Kanch	City/County: DISKI YOU C	9. Sampling Date: 0/23/2016
Applicant/Owner: Hart Ranch Investigator(s): Anorta Kabe Landform (hillslope, terrace, etc.): Willslope	Section Township Range:	Iling Point:
202123:01/2	Late Jack and Milliana Milliana	ex, none): COnvex Slope (%): 5
Soil Map Unit Name: 18D Will	AJCI IV	ANAII alaaasta asta
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes X No	(If no combine in Demandar)
, or Hydroid	PSY IVI) Significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrok	pgy No naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach si	to man chowing compliance to	·
Hydrophytic Vegetation Present? Yes	No K	t locations, transects, important features, et
Hydric Soil Present? Yes	No Is the Sampled Area w	ithin a Wetland? Yes No
Remarks:		
		l'
VEGETATION - Use scientific names	of plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicator <u>% Cover Species</u> ? Status	
1	% Cover Species? Status	Number of Dominant Species
2.		That Are OBL, FACW, or FAC: (A) Total Number of Dominant
3.		Species Across All Strata: 2 (B)
4.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x1 =
3.		FACW species x2 =
4.		FAC species x3 =
5.		FACU species x 4 =
Herb Stratum (Plot size: LM	= Total Cover	UPL species OD x5= 300
· Centainea soltitualio	22 14 1121	Column Totals: (OO (A) (SOO(B)
2. Bromus tectorium	32 4 40	
3.	-D 4.0PL	Prevalence Index = B/A =
4		Hydrophytic Vegetation Indicators:
5	र की १ - मेर. जेक्सीर र	1 - Rapid Test for Hydrophytic Vegetation
B	Aggree week and	2 - Dominance Test is >50%
7.		3 - Prevalence Index is ≤3.01
	(M) (4)	4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
11.		5 - Wetland Non-Vascular Plants¹
	(O) = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
Noody Vine Stratum ← (Plot size:)	= Total Cover	¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		so present, unless distanced or problematic.
	0 46 x 22 x	Marinon Marino
6 Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
Remarks:		
		1

SOIL				<i>a</i> .	Schallen Politi	
Profile Description: (Describe to	the depth needed to do	cument the indic	cator or confi	m the abse	nce of indicators.)	
Depth Matrix		Redox realu	ires	Loc ²	Texture	Remarks
(inches) Color (moist)	% Color (moist)	%^	Type'	LOC	-/:	(40)
0-10 2,54RW31	00				loom	
	(00				loam	
10-18 2.542 6/3					· AAAAAA	
			_			
				 -		
¹ Type: C=Concentration, D=Deple	tion, RM=Reduced Matrix,	CS=Covered or	Coated Sand	Grains. 2	ocation: PL=Pore	Lining, M=Matrix.
					ors for Problemati	c Hydric Soils ³ :
Hydric Soil Indicators: (Applica	ble to all LRRs, unless o	knerwise noted.	-)			A LITALIA AANA I
Histosof (A1)	Sandy Redox				n Muck (A10)	CO)
Histic Epipedon (A2)	Stripped Mat	rix (S6)			Parent Material (T	r2) face (TE40)
Black Histic (A3)	Loamy Muck	y Mineral (F1) (e	except MLRA	i) Ver	y Shallow Dark Sur	race (TPTZ)
Hydrogen Sulfide (A4)		ed Matrix (F2)		Oth	er (Explain in Rema	airs)
Depleted Below Dark Surface	(A11) Depleted Ma			3.		tie verstellen and
Thick Dark Surface (A12)	Redox Dark			ĭind	licators of hydrophy land hydrology mus	the present
Sandy Mucky Mineral (S1)	Depleted Da	rk Surface (F7)		wer	ess disturbed or pro	blematic
Sandy Gleyed Matrix (S4)	Redox Depre	essions (F8)		urii	ses distalled of pro	
		i				
Restrictive Layer (if present):		1	The state On the	leonari?	Yes	No X
Type:			Hydric Soil F	TESURE	103	
Depth (inches):						
Remarks:						
\ <u>\</u>	indicato	4 4				
Y 10	WIND COURD	()				
HYDROLOGY						- <u></u>
Wetland Hydrology Indicators:	· · · · · · · · · · · · · · · · · · ·					
Primary Indicators (minimum of one	required; check all that ap	ply)		Seconda	ry Indicators (2 or n	nore required)
	Water-St	tained Leaves (B	39) (except	Wate	er-Stained Leaves (39) (MILKA 1, 4,
Surface Water (A1)		, 2, 4A, and 4B)		40.4	and 4B)	/
High Water Table (A2)		st (B11)			Dallama (D40)	
,g., ('/	Salt Crus	`		Drain	nage Patterns (B10)	•
Saturation (A3)	Aquatic	Invertebrates (B1	13)	Draii	nage Patterns (B10) Season Water Table) e (C2)
	Aquatic Hydroge	Invertebrates (B1 n Sulfide Odor (0	13) C1)	Draii	nage Patterns (B10)) e (C2)
Saturation (A3) Water Marks (B1)	Aquatic Hydroge Oxidized	Invertebrates (B1 n Sulfide Odor (0 I Rhizospheres a	13) C1)	Drain Dry-	nage Patterns (B10) Season Water Table ration Visible on Ae	e (C2) rial Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Aquatic Hydroge Oxidized Roots (0	Invertebrates (B1 in Sulfide Odor (G I Rhizospheres a C3)	13) C1) along Living	Drain Dry- Satu	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D	e (C2) rial Imagery (C9)
Saturation (A3) Water Marks (B1)	Aquatic Hydroge Oxidized Roots (C	Invertebrates (B1 in Sulfide Odor (G I Rhizospheres a B3) e of Reduced Iro	13) C1) along Living on (C4)	Drain Dry- Satu	nage Patterns (B10) Season Water Table ration Visible on Ae	e (C2) rial Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Aquatic Hydroge Oxidized Roots (Control Present Recent I	Invertebrates (81 in Sulfide Odor (6 I Rhizospheres a 33) e of Reduced Iro ron Reduction in	13) C1) along Living on (C4)	Drain Dry- Satu Geo Shal	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D low Aquitard (D3)	e (C2) rial Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Aquatic Hydroge Oxidized Roots (Control Recent I Solls	Invertebrates (B1 in Sulfide Odor (G I Rhizospheres a 33) e of Reduced Iro Iron Reduction in 6)	13) C1) along Living on (C4) n Tilled	Drain Dry- Satu Geo Shal	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D	e (C2) rial Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Aquatic Hydroge Oxidized Roots (Compressed Recent In Soils	Invertebrates (B1 in Sulfide Odor (C I Rhizospheres a C3) e of Reduced Iro Iron Reduction in 6) or Stressed Plan	13) C1) along Living on (C4) n Tilled	Drain Dry- Satu Geo Shal	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D low Aquitard (D3) -Neutral Test (D5)	e (C2) rial Imagery (C9) 2)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Aquatic Hydroge Oxidized Roots (C Presence Recent I Solls (CI Stunted	Invertebrates (B1 in Sulfide Odor (G I Rhizospheres a C3) e of Reduced Iro Iron Reduction in 6) or Stressed Plan	13) C1) along Living on (C4) a Tilled ats (D1)	Drain Dry- Satu Geo Shal	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D low Aquitard (D3)	e (C2) erial Imagery (C9) 2)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Aquatic Hydroge Oxidized Roots (Control Presence Recent In Solls (Control	Invertebrates (B1 in Sulfide Odor (C I Rhizospheres a C3) e of Reduced Iro Iron Reduction in 6) or Stressed Plan	13) C1) along Living on (C4) a Tilled ats (D1)	Drain Dry- Satu Geo Shal	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6	e (C2) erial Imagery (C9) 2)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imag	Aquatic Hydroge Oxidized Roots (Compressed Solls (Compressed Stunted (LRR A)) Other (Edgery (B7)	Invertebrates (B1 in Sulfide Odor (G I Rhizospheres a C3) e of Reduced Iro Iron Reduction in 6) or Stressed Plan	13) C1) along Living on (C4) a Tilled ats (D1)	Drain Dry- Satu Geo Shal	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6	e (C2) erial Imagery (C9) 2)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Aquatic Hydroge Oxidized Roots (Compressed Solls (Compressed Stunted (LRR A)) Other (Edgery (B7)	Invertebrates (B1 in Sulfide Odor (G I Rhizospheres a C3) e of Reduced Iro Iron Reduction in 6) or Stressed Plan	13) C1) along Living on (C4) a Tilled ats (D1)	Drain Dry- Satu Geo Shal	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6	e (C2) erial Imagery (C9) 2)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Image Sparsely Vegetated Concave Su	Aquatic Hydroge Oxidized Roots (Compressed Solls (Compressed Stunted (LRR A)) Other (Edgery (B7)	Invertebrates (B1 in Sulfide Odor (G I Rhizospheres a C3) e of Reduced Iro Iron Reduction in 6) or Stressed Plan	13) C1) along Living on (C4) a Tilled ats (D1)	Drain Dry- Satu Geo Shal	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6	e (C2) erial Imagery (C9) 2)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Images Sparsely Vegetated Concave Surfield Observations:	Aquatic Hydroge Oxidized Roots (Compression Recent I Solls	Invertebrates (B1 in Sulfide Odor (C I Rhizospheres a C3) e of Reduced Iro Iron Reduction in 6) or Stressed Plan explain in Remark	13) C1) along Living on (C4) a Tilled onts (D1) ks)	Geo. Shal	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6 t-Heave Hummocks	e (C2) rial Imagery (C9) 2) (c) (LRR A) (c) (D7)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surface Water Present? Yes	Aquatic Hydroge Oxidized Roots (C) Presenc Recent I Solls (C) Stunted (LRR A) Other (E) gery (B7) urface (B8)	Invertebrates (B1 in Sulfide Odor (G I Rhizospheres a 33) e of Reduced Iro iron Reduction in 6) or Stressed Plan explain in Remark	13) C1) along Living on (C4) a Tilled onts (D1) ks)	Geo. Shal	nage Patterns (B10) Season Water Table ration Visible on Ae morphic Position (D low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6 t-Heave Hummocks	e (C2) erial Imagery (C9) 2)
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O DETERMINA	TION DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch	Sieking D	8/20/
Applicant/Owner: Hart Ranch	City/County: 213 NI VOIL-C	9. Sampling Date: 0/23/2010
Investigator(s): PMA MA RA IOA	State: CA Samp	
Investigator(s): Andréa Rabe: Landform (hillslope, terrace, etc.): Landform (LRR): MLRA 22R	Section, Township, Range:	45N K5W Sect 1,2+3
Subregion (LRR): MLRA 222	Local relief (concave, conve	ex, none): CONFAME Slope (%): 5
Soil Map Unit Name: 18D / Out is 1	OCINA	Datum: NAN 63
Are climatic / hydrologic conditions on the site two	ical for this time of war-2 V V	NWI classification:
Are Vegetation , Soil , or Hydrolog	No. Significantly district and	"Normal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrolog	ay No naturally problematic?	Normal Circumstances present? Yes No
		(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site	e map showing sampling poin	t locations, transects, important features, et
Hydrophytic Vegetation Present? Yes	No	
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No is the Sampled Area w	ithin a Wetland? Yes X No
Remarks:		
TOTAL NO.		
di	+ch-	
VEGETATION - Use scientific names of	of plants.	
Toron Charles	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
		That Are OBL, FACW, or FAC:(A)
2.		Total Number of Dominant
3.		Species Across Ali Strata: (B)
		Percent of Dominant Species
1		That Are OBL, FACW, or FAC:(A/B)
	= Total Cover	
		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species x 1 =
		FACW species x 2 =
		FAC species x 3 =
		FACU species x 4 =
erb Stratum (Piot size: 12)	= Total Cover	UPL species x 5 =
(lot oze.		Column Totals: (A) (B)
		
		Prevalence Index = B/A =
	·	the dead of the state of the st
	e e la	Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
	(M.),	3 - Prevalence Index is ≤3.0¹
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
	1 11 19 14 A 1 A 1	Problematic Hydrophytic Vegetation (Explain)
	= Total Cover	
pody Vine Stratum (Plot size:)	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	-	be present, unless disturbed or problematic.
	Secretary of the second	400
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum		Vegetation
	at 10	rresent? Yes /No
narks: no veg-pro	HOMON !	Present? Yes No
- 100 - 10ED	108 ANK	My real of the
no veg	(1) yes char in	100
. •	TO WE PORTS	toen water
		Office wrongs

Western Mountains Vallage and Coast _ Varsion 2.0

US Army Corps of Engineers

	Separating Politic 36
SOIL	depth needed to document the indicator or confirm the absence of Indicators.)
	REDDX FEBRUIES
Depth Matrix (inches) Color (moist) %	Tardura Domarks
0-5 2.5 yel/3 10	Opa - i
5-18 2.5 YRUL 95	5 ye 416 5 gand
1Tyros C-Consentration D-Depletion	, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
	to all Error, allowed and the second
Histosol (A1)	Satisfy Additiv (CS) Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3)	Using Mucky Mineral (F1) (excent MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Other (Explain in Remarks)
Depleted Below Dark Surface (A1	1) Depleted Matrix (F3)
Thick Dark Surface (A12)	Redox Dark Surface (F6) Indicators of hydrophytic vegetant and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present, Redox Depressions (F8) unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (Fo)
Restrictive Layer (if present):	
	Hydric Soil Present? Yes No
Type: Depth (inches):	
Depar (monea).	
Remarks: Gold in Oct 2016	(ANIFAITER)
(ail) Derallo	Contract traction they conductant
Swe Mr of go	Treamenta upunce. There surery cayou
	excanated topsoil. Hen sandy layer
HYDROLOGY	IN alta porton
Wetland Hydrology Indicators:	
	a to the state of
Primary Indicators (minimum of one requ	uired: check all that apply) Secondary Indicators (2 or more required)
Primary Indicators (minimum of one requ	uired; check all that apply) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Primary Indicators (minimum of one requestrates Water (A1)	uired; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
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Primary Indicators (minimum of one requestrated Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	uired; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
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	mountains, valleys, and Coast Region
Project/Site: Hart Ranch City/County: Siskiyou	8/22/2011
Applicant/Owner: Hart Ranch State: CA Sample State: CA Sa	Sampling Date: U/25/2010
Investigator(s): NOVER KAPE Section Township Person	Diring Point: SC
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, conversion (LRR): MLRA 228	DN 185W SECT 1,2+3
	ex, none): Convey Slope (%):
Soil Map Unit Name: 180 Louis Loom	54.27 Datum: NAD 83
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X	NWI classification:
Are Vegetation , Soil , or Hydrology 10 significantly disturbed? Are	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology ND naturally problematic?	Normal Circumstances" present? Yes No
	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point Hydrophytic Vegetation Present? Yes No	It locations transacts important factures
Hudrin Soil Drangers	
Hydric Soil Present? Yes No No Is the Sampled Area w	rithin a Wetland? Yes No X
Remarks:	
TOTHERO.	
upland ditch bank	
The state of the s	
VEGETATION - Use scientific names of plants.	
Absolute Dominant Indiana	Dominance Test worksheet:
Tree Stratum (Plot size:) % Cover Species? Status	Number of Dominant Species
1.	That Are OBL, FACW, or FAC: (A)
2.	Total Number of Dominant
3.	Species Across All Strata: (B)
4.	Percent of Dominant Species
	That Are OBL, FACW, or FAC: 330 (A/B)
= Total Cover	
Sapling/Shrub Stratum (Plot size:)	Prevalence Index worksheet:
	Total % Cover of: Multiply by:
	OBL species x1 =
	FACW species x 2 =
	FAC species ZO x3 = 60
	FACU species x 4 =
orb Stratum (Diot size) 120 7	UPL species $600 \times 5 = 376$
erb Stratum (Plot size: M7 LPN TOUM a So 15t tick 20 V 11D)	
Element of the second of the s	Column Totals: RD (A) 3(B)
Bromus tectorum 40 y UPL	Prevalence Index = B/A =
leynus cineurus 70 4 FAC	
	Hydrophytic Vegetation Indicators:
	1 - Rapid Test for Hydrophytic Vegetation
Section 20 mg	2 - Dominance Test is >50%
-92-32- y-3	3 - Prevalence index is ≤3.01
	4 - Morphological Adaptations (Provide supporting)
	data in Remarks or on a separate sheet)
	5 - Wetland Non-Vascular Plants ¹
	Problematic Hydrophytic Vegetation¹ (Explain)
cody Vine Stratum (Plot size:	Indicators of hydric soil and wetland hydrology must
) 10t SIZE.	be present, unless disturbed or problematic.
	经 的 200 0000000000000000000000000000000000
3 24.20	Hydrophytic
Bare Ground in Herb Stratum 20 — = Total Cover	Vegetation \
- Community Community	Present? Yes No
marks:	7
ilidins,	
	1
	1

SOIL			হার লোগুলিকে ইতারি	
Profile Description: (Describe to the dep	th needed to document the indi	cator or confirm the	absence of indicators.)	
Depth Matrix (inches) Color (moist) %	Color (moist) %	Type Loc2	Texture	· Remarks
$\frac{\text{(inches)}}{0-10} \frac{\text{Color (moist)}}{3548.62} \frac{\%}{100}$	Ociol (molecy		loam	
			loan	
10-18 disyrus 100				
				
				
				Lines Manhatriy
¹ Type: C=Concentration, D=Depletion, RM	=Reduced Matrix, CS=Covered or			
Hydric Soil Indicators: (Applicable to a	ll LRRs, unless otherwise noted	l.) tr	dicators for Problemati	c Hydric Soils":
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10) Red Parent Material (T	·E2\
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (6	woont MI PA 1\	Very Shallow Dark Sur	face (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	except with 1/	Other (Explain in Rem	arks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		-	
Thick Dark Surface (A12)	Redox Dark Surface (F6)		³ Indicators of hydrophy wetland hydrology mus	tic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) Redox Depressions (F8)		unless disturbed or pro	blematic
Sandy Gleyed Matrix (S4)	Redux Depressions (1 0)			
Restrictive Layer (if present):			10 24	No X
Туре:		Hydric Soil Presen	t? Yes	140
Depth (inches):			<u> </u>	
Remarks:				
100	indicators			
V 10	MIGICON DAZ	~		
	WIGICAN DAZ			
HYDROLOGY	midicar biz			
HYDROLOGY Wetland Hydrology Indicators:		Se	condary Indicators (2 or r	nore required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	; check all that apply) Water-Stained Leaves (B	39) (except	Water-Stained Leaves (nore required) B9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	; check all that apply) Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B)	39) (except	Water-Stained Leaves (4A, and 4B)	B9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B	39) (except	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Table	B9) (MLRA 1, 2,) e (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B: Hydrogen Sulfide Odor (B:	13) (except ————————————————————————————————————	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10	B9) (MLRA 1, 2,) e (C2)
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HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B: Hydrogen Sulfide Odor (G: Oxidized Rhizospheres a Roots (C3)	13) (except 13) C1) along Living	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Table	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
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Total % Cover of: Multiply by: OBL species	. •		mountains, valleys, and Coast Region
tree stratum (Plot size:) Supplier (Plot size:) Su	Project/Site: Hart-Kanch	City/County: Siski Vinu P	Des Sampling Date: 8/22/2011
Subseption (LRR): MLRA 2.R Stratum (Plot size:) Subseption (LRR): MLRA 2.R Stratum (Plot size:) Subseption (LRR): MLRA 2.R Stratum (Plot size:) Sold Map thin Name: Isla Multiply (Incomplete Circumstance) (April (Incomplete Circumstance) (Incomple	Applicant/Owner: Hart Ranch	State: CA Same	oling Point:
Subseption (LRR): MLRA 2.R Stratum (Plot size:) Subseption (LRR): MLRA 2.R Stratum (Plot size:) Subseption (LRR): MLRA 2.R Stratum (Plot size:) Sold Map thin Name: Isla Multiply (Incomplete Circumstance) (April (Incomplete Circumstance) (Incomple	Investigator(s): Andrea Kabe	Section, Township, Range:	45N REW 805 213
Sool Map Until Name: ISLa MONA CONTROL STATE	Landform (hillslope, terrace, etc.):	Local relief (concave, conve	ex none): (Any way Stone (8/1): 3
Are circulation hydrologic conditions on the stellysical for this time of year? Yes No (fine, explain in Remarks.) Are Vegetation Soil or Hydrology No significantly disturted? Are Normal Circumstances' present? Yes No (fine, explain in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, ethydrology Present? Yes No Yes No Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point locations, transects, important features, ethydrology Present? Yes No (site map showing sampling point in features, ethydrology Present? Yes No (site map showing sampling point in features, ethydrology Present? Yes No (site map showing sampling point in features, ethydrology Present? Yes No (site map showing sampling point in features, ethydrology Present? Yes No (site map s			Colo Datum: NAN & 3
Are Vegetation Soll , or Hydrology Conditions on the stellegical for this time of year? Yes X No (fin ne explain in Remarks.) Are Vegetation Soll , or Hydrology No spinitionally deturbed? Are Normal Circumstances' present? Yes X No (fin needed, explain any rewares in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, et Hydrology Present? Yes No X is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X is the Sampled Area within a Wetland? Yes No X Is the	Soil Map Unit Name: 186 Mont	1.00m 9-15%	NWI classification:
Are Vegetation	Are climatic / hydrologic conditions on the site	(Dical for this time of year? Voc. V	0.0
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, et hydropytic Vegetation Present? Yes No X is the Sampled Area within a Wetland? Yes No X is the Sampled Area		YST ITE SIGNICATION DISTINGUE AFA	"Normal Circumstances" present? Yes X
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, et hydrophytic vegetation (Piot size: Ves	, Soil , or Hydrole	ogy NO naturally problematic?	(If needed, explain any answers in Remarks.)
Sampled Area within a Wetland? Yes No Xes Xes No Xes Xes No Xes Xes No Xes Xe	SUMMARY OF FINDINGS - Attach si	ife man showing compliant	
Wedand hydrology Present? Wes No Remarks: WEGETATION – Use scientific names of plants. Tree Stratum (Plot size:)	Hydrophytic Vegetation Present? Yes	No X	t locations, transects, important features, et
VEGETATION - Use scientific names of plants. Dominance Test worksheet: Number of Dominant Species Species Species Status Status Species Sp	Hydric Soil Present? Yes Wetland Hydrology Present?	No Is the Sampled Area w	rithin a Wetland? Yes No 😾
VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:)		No X	
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Absolute Species Status Plot size: Absolute Species Dominant Species Number of Dominant Species Number of Dominant Species Number of Dominant Species Number of Dominant Species Provide of Dominant Spe			
Mumber of Dominant Species Multiply by Mumber of Dominant Species Multiply by	VEGETATION - Use scientific names	of plants.	
Mumber of Dominant Species Multiply by Mumber of Dominant Species Multiply by	Tropo Sánchura (Dl. 4 - 1-	Absolute Dominant Indicator	Dominance Test worksheet:
That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species X1 = FACW species X2 = FAC species X3 = FACU species X4 = UPL species YD Y UPL Column Totals: (Plot size: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is \$3.0° 4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) 5 - Weltand Non-Vascular Plants' Problematic Hydrophytic Vegetation (Explain) indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Pare Ground in Herb Stratum Present? Yes No No		0/ 0	Number of Dominant Species
Species Across All Strate: [B] Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Frevalence Index worksheet: Total % Cover of: Multiply by: OBL species x2 = FACW species x3 = FACW species x4 = FACU species x4 = UPL species 7D x5 = 100 Column Totals: 1D (A) 100 (B) Prevalence Index = B/A = FACU species x3 = FACU species x4 = UPL species x4 = UPL species 7D x5 = 100 Column Totals: 1D (A) 100 (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is 33.0' 4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) 5 - Welland Non-Vascular Plants' Problematic Hydrophytic Vegetation (Explain) Total Cover into All Stratum (Plot size:) For Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No All Stratum Yes No All Stratum (Provide supporting data in Remarks) For Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	2		That Are OBL, FACW, or FAC: (A)
Percent of Dominant Species That Are OBL, FACW, or FAC: That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FACW species x3 = FACU species x4 = UPL species ZD x5 = 100 Column Totals: 2D (A) 100 (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0' 4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants' Problematic Hydrophytic Vegetation' (Explain) 1 - Rapid Test for Hydrophytic Vegetation' (Explain) 1 - Rapid Test for Hydrophytic Vegetation on a separate sheet) 5 - Wetland Non-Vascular Plants' Problematic Hydrophytic Vegetation' (Explain) 1 - Rapid Cover Hydrophytic Vegetation or problematic.	3.		
That Are OBL, FACW, or FAC:	4.		
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species			
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species		= Total Cover	
Total % Cover of: Multiply by: OBL species	Sapling/Shrub Stratum (Plot size:)	= 10tal C0Ve;	Prevalence Index worksheet
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## FACU species			
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Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Fresent? Yes No		70 V 11:01	
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3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) andy Vine Stratum (Plot size:) = Total Cover Total Cover Hydrophytic Vegetation		to a material	
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be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No No No No No No No N		20	Problematic Hydrophytic Vegetation ¹ (Explain)
= Total Cover Hydrophytic Vegetation Present? Yes No	oody Vine Stratum (Plot size:)	= Total Cover	indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Bare Ground in Herb Stratum = Total Cover Hydrophytic Vegetation Present? Yes No			
Sare Ground in Herb Stratum Stratum Total Cover Vegetation Present? Yes No			the part of the second of the
Present? Yes No X	Bare Ground in Herb Coulting	= Total Cover	i yulopilytic
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SOIL			इक्टाब्रालक रेगोर्वे प्र
Profile Description: (Describe	to the depth needed to document the in	ndicator or confirm the	absence of indicators.)
Depth Matrix	Redox re	alures	
(inches) Color (moist)	% Color (moist) %	Type Loc ²	Texture Remarks
4	100		100 m
0-10 7.54R3/3	100	. 	
10-18 7,542-3/4	100		Allam
10 10 113 12 13			
			
	VI		
		- 10 10	² Location: PL=Pore Lining, M=Matrix.
¹ Type: C=Concentration, D=Dep	oletion, RM=Reduced Matrix, CS=Covered	d or Coated Sand Grains.	-Location: PL-Fore Limity, W-Watha
			dicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: (Appli	cable to all LRRs, unless otherwise no	tea.)	
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10)
, , ,	Stripped Matrix (S6)		Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
	Loamy Gleyed Matrix (F2)	· · · · · · · · · · · · · · · · · · ·	Other (Explain in Remarks)
Hydrogen Sulfide (A4)			
Depleted Below Dark Surface (A42)	Redox Dark Surface (F6)		³ Indicators of hydrophytic vegetation and
Thick Dark Surface (A12)	Depleted Dark Surface (F		wetland hydrology must be present,
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	'/	unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redux Depressions (1 0)		
_		}	- F
Restrictive Layer (if present):		1	7 Yes No
Type:		Hydric Soil Present	? Yes No
Depth (inches):		1	
Deput (inches).			<u> </u>
Remarks:			
	100 00 1	N COOLS	
	1 10 11 10	No Section Annual Control	
HYDROLOGY			
Wetland Hydrology Indicators:			
AASTISLIG LIAGLDIOOA IUDICSIO(2:			- design (2 or more required)
Primary Indicators (minimum of or	ne required; check all that apply)		condary Indicators (2 or more required)
Primary Indicators (minimum of or	Water-Stained Leave	s (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Primary Indicators (minimum of or	ne required; check all that apply) Water-Stained Leave MLRA 1, 2, 4A, and	s (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Primary Indicators (minimum of or Surface Water (A1)	Water-Stained Leave MLRA 1, 2, 4A, and a Salt Crust (B11)	s (B9) (except 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2)	Water-Stained Leave MLRA 1, 2, 4A, and a Salt Crust (B11)	s (B9) (except 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leave MLRA 1, 2, 4A, and 6 Salt Crust (B11) Aquatic Invertebrates	s (B9) (except 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2)	Water-Stained Leave MLRA 1, 2, 4A, and of Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od	s (B9) (except 4B) s (B13) or (C1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leave MLRA 1, 2, 4A, and of Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphero	s (B9) (except 4B) s (B13) or (C1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leave MLRA 1, 2, 4A, and of Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphero Roots (C3)	s (B9) (except 4B) s (B13) or (C1) es along Living	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leave MLRA 1, 2, 4A, and a Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphera Roots (C3) Presence of Reduced	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leave MLRA 1, 2, 4A, and of Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphero Roots (C3) Presence of Reduced Recent Iron Reduction	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leave MLRA 1, 2, 4A, and a Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphera Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6)	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leave MLRA 1, 2, 4A, and a Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphera Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leave MLRA 1, 2, 4A, and a Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphera Roots (C3) Presence of Reduced Recent Iron Reductio Solls (C6) Stunted or Stressed (LRR A)	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leave MLRA 1, 2, 4A, and a Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Ode Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Rer	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im	Water-Stained Leave MLRA 1, 2, 4A, and a Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reducer Recent Iron Reduction Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Remarks) Other (Explain in Remarks)	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leave MLRA 1, 2, 4A, and a Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reducer Recent Iron Reduction Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Remarks) Other (Explain in Remarks)	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im	Water-Stained Leave MLRA 1, 2, 4A, and a Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reducer Recent Iron Reduction Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Remarks) Other (Explain in Remarks)	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reducet Recent Iron Reductio Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Rer	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations:	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reducet Recent Iron Reductio Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Rer	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present?	Water-Stained Leave MLRA 1, 2, 4A, and salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Roots (C3) Presence of Reducet Recent Iron Reductio Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Rer nagery (B7) Surface (B8) Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present?	Water-Stained Leave MLRA 1, 2, 4A, and salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Reference (B8) Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present?	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reducer Recent Iron Reduction Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Reference (B8) Depth (inches): Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Rer No Depth (inches): Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reducer Recent Iron Reduction Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Reference (B8) Depth (inches): Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Rer No Depth (inches): Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Rer No Depth (inches): Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes Describe Recorded Data (stream g	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Rer No Depth (inches): Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary frince)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Rer No Depth (inches): Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shatlow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present? Saturation Present? Yes Saturation Present? (includes capillary fringe) Yes Describe Recorded Data (stream g	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Ref Characteristics (B8) Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetland Hy vious inspections), if avail	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) drology Present? Yes No
Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave Field Observations: Surface Water Present? Yes Water Table Present? Saturation Present? (includes capillary fringe) Yes Describe Recorded Data (stream g	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed (LRR A) Other (Explain in Ref Characteristics (B8) Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches):	s (B9) (except 4B) s (B13) or (C1) es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) drology Present? Yes No

. (.)		Mountains, Valleys, and Coast Region
Project/Site: HAV+ KANCH	city/county: Siski you C	8/2-1.
Applicant/Owner: Hart Ranch	City/County: 315NTVOIC	9. Sampling Date: 0/23/2010
Investigator(s): Andrea Kabe	State: CA Samp	ling Point:
Landform (hillslope, terrace, etc.): hillslop	Could rolled (consequence)	75N, K5W Sect 1,2+3
Subregion (LRR): MLRA 228	Lat: 120 200 RD-Long: 41/	ex, none): CONCAUS Slope (%): 3
Soil Map Unit Name: 186 mou	110 am	Lebel 15 Datum: NHO 13
Are climatic / hydrologic conditions on the site two	gied for this time of year? Yes V	INVVI classification:
	WY FNIX SIGNIFICANTO MICH PAGES A.S.	(If no, explain in Remarks.) "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrolog	gy NO naturally problematic?	Normal Circumstances present? Yes No
		(if needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes	e map showing sampling poin	t locations, transects, important features, etc.
18 fedles et Abretia I Paris	No is the Sampled Area w	ithin a Wetland? Yes No
Remarks:		
L excauated a	Litch	
1/50/5/10/10		
VEGETATION - Use scientific names	of plants.	
Tree Stratum (Plot size:	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
2.		That Are OBL, FACW, or FAC:(A)
3.		Total Number of Dominant
4.		Species Across All Strata: (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	-7-110	(AVB)
Sapling/Shrub_Stratum (Plot size:)	= Total Cover	Prevalence Index worksheet:
1.		1
2.		Total % Cover of: Multiply by:
3.		OBL species x1=
4.		FACW species x2=
5.		FAC species x3 =
1. 2-	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: M)		UPL species x 5 =
1.		Column Totals: (A) (B)
2.		Prevalence index = B/A =
3.		
4.		Hydrophytic Vegetation Indicators:
5.	Sept of the september of	1 - Rapid Test for Hydrophytic Vegetation
7	Security of a	2 - Domlnance Test is >50%
8.		3 - Prevalence Index is ≤3,01
9.		4 - Morphological Adaptations / Provide supporting
10.		data in Remarks or on a separate sheet)
11,	1 12 11 41 - 12	5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:	= Total Cover	Indicators of hydric soil and wetland hydrology must
1		be present, unless disturbed or problematic.
2.	45 Mary 1984	200
	= Total Cover	Hydrophytic
% Bare Ground in Herb Stratum	- Total Cover	Vegetation
	1	Present? Yes No
Remarks:		Triva a
	and omoric.	and lay will not
openina	er problematic	10 16 MA 100 100 100 100 100 100 100 100 100 10
		Hydrophytic Vegetation Present? Yes X No Aparth Parties of Abrahaman Apartse / parties of Abrahaman
		1 V/ T/ // // // // /

US Army Corps of Engineers

Western Blaumfalms Mallous and Court Marines

O.II				et reighteer	46
Profile Description: (Describe to th	e denth needed to docum	nent the indicator o	r confirm the al	sence of indicato	rs.)
	e debut tiseaca to acca.	MEGOX Leginies			
	% Color (moist)	% Type	Loc ²	Texture	Remarks
(Intorred)	00			LOAM	
				pandy	1 MA WA
5-19 1048311 9	5 7,54RY/6	<u> </u>		HELFI MAGE	UV(II)
					
			=0		
Type: C=Concentration, D=Depletio	n RM-Reduced Matrix C	S=Covered or Coate	Sand Grains.	² Location: PL=P	ore Lining, M=Matrix.
				estare for Problem	natic Hydric Soils ³ :
Hydric Soil Indicators: (Applicable	e to all LRRs, unless oth	erwise noted.}			ilado rijuno usiis i
Histosol (A1)	Sandy Redox (\$	S5)		2 cm Muck (A10)	u (TEO)
Histic Epipedon (A2)	Stripped Matrix	(S6)		Red Parent Materia Very Shallow Dark	31 (174) Surface /TE12\
Black Histic (A3)	Loamy Mucky N	Aineral (F1) (except	MLRA 1)	Very Snallow Dark Other (Explain in R	Sunace (IFIZ)
Hydrogen Sulfide (A4)	Loamy Gleyed	Matrix (F2)		Other (Explain in R	(ellialks)
Depleted Below Dark Surface (A	(11) Depleted Matrix	(F3)		31-displays of hydro	ophytic vegetation and
Thick Dark Surface (A12)	Redox Dark Su			wetland hydrology	must be present.
Sandy Mucky Mineral (S1)	Depleted Dark Redox Depress			unless disturbed o	r problematic
Sandy Gleyed Matrix (S4)	Redox Depress	Sions (Fo)			<u>, </u>
				\ -	
estrictive Layer (if present):		Hudel	c Soil Present?	Yes X) No
Type:		—— "'yd''	0 0011 1 1000		
Depth (inches):					<u> </u>
narks:					
YDROLOGY					
Vetland Hydrology Indicators:	and the second second	۸	Seco	ndary Indicators (2	or more required)
rimary Indicators (minimum of one re	quired; check all that apply	ned Leaves (B9) (ex		Vater-Stained Leav	es (B9) (MLRA 1, 2,
<u> </u>	Vyater-Stall	, 4A, and 4B)	4	A, and 4B)	
Surface Water (A1)	Salt Crust		— t	rainage Patterns (B10)
High Water Table (A2)	Agustic Inv	ertebrates (B13)		ry-Season Water	Γable (C2)
Saturation (A3)	- Hydrogen	Sulfide Odor (C1)		Saturation Visible o	n Aerial Imagery (C9)
Water Marks (B1)	Oxidized R	hizospheres along L	iving		
Sediment Deposits (B2)	Roots (C3)		5550	Seomorphic Positio	
Drift Deposits (B3)	Presence of	of Reduced Iron (C4)	:	Shallow Aquitard (D	13)
Dill Dobooin (Do)	Recent Iro	n Reduction in Tilled		AA Maridaal Tank /	76)
Algal Mat or Crust (B4)	Soils (C6)			AC-Neutral Test (נסכ
		Stressed Plants (D1	' .	Raised Ant Mounds	(D6) (LRR A)
Iron Deposits (B5)	(LRR A)	Later for Proceedings		Frost-Heave Humm	nocks (D7)
Surface Soil Cracks (B6)		olain in Remarks)		INGLI INGRA LIGHT	
Inundation Visible on Aerial Image	ry (B7)				
Sparsely Vegetated Concave Surfi	ace (B8)				
Sparsely Vegetated Concave Surf	ace (B8)		1		
Sparsely Vegetated Concave Surficiel Observations:		el 20 m			2
Sparsely Vegetated Concave Surficield Observations: Surface Water Present? Yes	No Depth (inche		Wetland Hvd	rology Present?	Yes Y No
Sparsely Vegetated Concave Surficient Observations: Surface Water Present? Vater Table Present? Yes			Wetland Hyd	rology Present?	Yes No _
Sparsely Vegetated Concave Surficeld Observations: Surface Water Present? Vater Table Present? Saturation Present?	No Depth (inche	s):	Wetland Hyd	rology Present?	Yes No _
Sparsely Vegetated Concave Surficield Observations: Surface Water Present? Yes Vater Table Present? Yes Saturation Present?	No Depth (inche	s):			Yes No
ield Observations: urface Water Present? Yes Vater Table Present? Yes vaturation Present? Yes caturation Present?	No Depth (inche	s):			Yes No
ield Observations: urface Water Present? Yes Vater Table Present? Yes vaturation Present? Yes caturation Present?	No Depth (inche	s):			Yes No
ield Observations: urface Water Present? Yes Vater Table Present? Yes vaturation Present? Yes caturation Present?	No Depth (inche	s):			Yes No
Sparsely Vegetated Concave Surficient Observations: surface Water Present? Yes Vater Table Present? Yes vater Table Present? Yes vaturation Present? Yes notudes capillary fringe) Yes Secribe Recorded Data (stream gauge	No Depth (inche	s):			Yes No
Sparsely Vegetated Concave Surficield Observations: Surface Water Present? Yes Vater Table Present? Yes Saturation Present? Includes capillary fringe) Yes escribe Recorded Data (stream gaug	No Depth (inche	s):			Yes No
Sparsely Vegetated Concave Surficed Observations: Surface Water Present? Water Table Present? Saturation Present?	No Depth (inche	s):			Yes No

^	Western	Mountains, Valleys, and Coast Region
Project/Site: HAV+ Kanch	City/County: Siskiyou C	8/02/0
Applicant/Owner: Hart Ranch	State: CA Samp	Sampling Date: 0/23/2010
Landform (hillslope, terrace, etc.): hillslope	Ocal zalief (conserve conserve	DN, KSW Sect 1,2+3
		ex, none): Conwex Slope (%): 5
Are climate / Hyorologic conditions on the site for	lical for this time of war at V	NWI classification:
, Or Hydrold	By No significantly disturbed? Are	(If no, explain in Remarks.) "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrolog	By No naturally problematic?	(If needed, explain any answers in Remarks.)
Hydrophylic Vegetation Present?	e map showing sampling poin	t locations, transects, important features, et
Hydric Soil Present? Yes	No X Is the Sampled Area w	
1 18/68 6 - 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	No C	ithin a Wetland? Yes NoX
Remarks:		
1\0	A Altar	4
upia upia	nd drichban	NK.
VEGETATION LIes seigniffs		
VEGETATION - Use scientific names	of plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
1. (Plot size)	% Cover Species? Status	Number of Dominant Species
2.		That Are OBL, FACW, or FAC: (A)
3.		Total Number of Dominant Species Across All Strata: (B)
4.		Species Across All Strata: (B) Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Prevalence Index worksheet:
1.		
2.		OBL species x1 =
3.		
4.		
5.		
1	= Total Cover	FACU species x4=
lerb Stratum (Plot size:		UPL species $\frac{70}{x^5} \times 5 = \frac{750}{x^5}$
Centauria Soltitulalis	TO Y UPL	Column Totals: 20 (A) 350 (B)
Exercus tectorum	20 6 UPL	Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	िस्रार्थ कि प्राथमिक	1 - Rapid Test for Hydrophytic Vegetation
	1 C. R. 100 P.S 3	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
	22.41.3	4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
-		5 - Wetland Non-Vascular Plants ¹
-		Problematic Hydrophytic Vegetation¹ (Explain)
foody Vine Stratum (Plot size:)	Total Cover	Indicators of hydric soil and wetland hydrology must
		be present, unless disturbed or problematic.
	7 9	
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum	- rotal Coyel	Vegetation
	1	Present? Yes No
emarks;		
•		

COIL	
SOIL	epth needed to document the indicator or confirm the absence of indicators.)
	Redox Features
Depth Matrix	Color (moist) % Type Loc Texture Remarks
(inches) Color (moist) %	Color (molec)
D-6 7.54R34 LO	2
	0.000
6-18 7.542 3/3 10	
	Past-Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
^¹ Type: C≃Concentration, D=Depletion, R	Reduced Matrix, 55-5545153 51 55455
	Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: (Applicable to	all Lares, chiese constitution in the any
Histosol (A1)	Sandy Redox (S5) 2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6) Red Parent Material (TP2)
Black Histic (A3)	Learny Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (1F12)
BIRCK TISUC (Ad)	Loamy Gleyed Matrix (F2) Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Eddiny ordy or many or y
Depleted Below Dark Surface (A11)	
Thick Dark Surface (A12)	the state of the state of the property
Sandy Mucky Mineral (S1)	
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed of problematic
Restrictive Layer (if present):	
Kestlictiae rate (u biescur).	Hydric Soil Present? Yes No
Type:	Tryulo don't room.
Depth (inches):	
Remarks:	
~~~	and the second s
K 10	indicators
HYDROLOGY	
Wetland Hydrology Indicators:	sed: check all that apply)  Secondary Indicators (2 or more required)
Primary indicators (minimum of one requir	
Times y marcara (	
	Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
Surface Mater (A1)	Water-Stained Leaves (B9) (except  Water-Stained Leaves (B9) (MLRA 1, 2,  MI RA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)
Surface Water (A1)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)
	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
High Water Table (A2)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)
High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Present Iron Reduction in Tilled  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imagery (B5) Sparsely Vegetated Concave Surface	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imagery (E Sparsely Vegetated Concave Surface  Field Observations:	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B1) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present?  Yes	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present?  Yes	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunded or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present?  Yes	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Present?
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Esparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  FAC-Neutral Test (D3) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (E) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  FAC-Neutral Test (D3) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (E) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Present?
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (E) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  FAC-Neutral Test (D3) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (E) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  FAC-Neutral Test (D3) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (ES) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Yes Water Table Present? (includes capillary fringe)  Describe Recorded Data (stream gauge, marks)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  FAC-Neutral Test (D3) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Esparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): N
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (ES) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Yes Water Table Present? (includes capillary fringe)  Describe Recorded Data (stream gauge, marks)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): N
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (ES) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Yes Water Table Present? (includes capillary fringe)  Describe Recorded Data (stream gauge, marks)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  FAC-Neutral Test (D3) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (ES) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes Cincludes capillary fringe) Yes Describe Recorded Data (stream gauge, marks)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches): N

Are Vegetation Soil or Hydrology D significantly disturbed? Are "Not Are Vegetation Soil or Hydrology D significantly disturbed? Are "Not Are Vegetation Soil or Hydrology D naturally problematic? (If SUMMARY OF FINDINGS — Attach site map, showing sampling point to Hydrology Present? Yes No Hydric Soil Present? Yes No Remarks:    Vegetation Present? Yes No	
Investigator(s): MACA RADE Section, Township, Range: Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, n Subregion (LRR): MLRA 28 Lat: 23.31513 Long: U. 430 Soli Map Unit Name: 187 MALL Strong (QUAM N Are climatic / hydrologic conditions on the gle typical forulis time of year? Yes X No Are Vegetation Soll or Hydrology No significantly disturbed? Are 'Not Are Vegetation	8/22/2-11
Subregion (LRR): MLRA 22B Lat: 123.318103 Long: 11.630 Soli Map Unit Name: 187 M(JALL STD)   LOQM   NV Are climatic / hydrologic conditions on the eige typical forthis time of year? Yes   No Are Vegetation   Soli   or hydrology   No significantly disturbed?   Are "Not Are Vegetation   Soli   or hydrology   No naturally problematic?    SUMMARY OF FINDINGS - Attach site map showing sampling point to hydrophytic Vegetation Present?   Yes   No   Hydrophytic Vegetation Present?   Yes   No   Welland Hydrology Present?   Yes   No   Welland Hydrology Present?   Yes   No   Y	Sampling Date:
Subregion (LRR): MLRA 22B Lat: 123.318103 Long: 11.630 Soli Map Unit Name: 187 M(JALL STD)   LOQM   NV Are climatic / hydrologic conditions on the eige typical forthis time of year? Yes   No Are Vegetation   Soli   or hydrology   No significantly disturbed?   Are "Not Are Vegetation   Soli   or hydrology   No naturally problematic?    SUMMARY OF FINDINGS - Attach site map showing sampling point to hydrophytic Vegetation Present?   Yes   No   Hydrophytic Vegetation Present?   Yes   No   Welland Hydrology Present?   Yes   No   Welland Hydrology Present?   Yes   No   Y	Point:
Subregion (LRR): MLRA 228 Lat: 123.316103 Long: U. 12-30. Soil Map Unit Name: 187 M (LATA) Statum (Plot size: )  Soil Map Unit Name: 187 M (LATA) Statum (Plot size: )  Soil Are Vegetation on the eye typical forthis time of year? Yes No Are Vegetation on Soil or Hydrology No significantly disturbed? Are "Not Are Vegetation on Soil or Hydrology No naturally problematic? (If SUMMARY OF FINDINGS – Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No	5NK5W Sect 1,2+3
Soli Map Unit Name: 187 YM/MA STDYM (DAM) Are climatic / hydrologic conditions on the site typical forthis time of year? Yes X No Are Vegetation Soil or Hydrology D significantly disturbed? Are "Not Are Vegetation Soil or Hydrology D significantly disturbed? Are "Not Are Vegetation Soil or Hydrology D naturally problematic? (If SUMMARY OF FINDINGS — Attach site map, showing sampling point to Hydrophytic Vegetation Present? Yes No Yes	one): Compex Slope (%):
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No Are Vegetation Soil or Hydrology No significantly disturbed? Are "Not Are Vegetation Soil or Hydrology No naturally problematic? (If SUMMARY OF FINDINGS – Attach site map, showing sampling point to Hydrology Present? Yes No Hydrology Present? Yes No Wetland Hydrology Present? Yes No Security Presents:  ### Climatic / hydrology Present? Yes No Wetland Hydrology Present? Yes No Security Presents:  ### Climatic / hydrology Present? Yes No Wetland Hydrology Present? Yes No Security Presents:  ### Climatic / hydrology Present? Yes No Wetland Hydrology Present? Yes No Security Presents:  ### Climatic / hydrology Present? Yes No Wetland Hydrology Present? Yes No Security Present? Yes No Security Present Indicator Security Status  #### Climatic / hydrology Present? Yes No Security Present? Yes No Security Present?  #### Climatic / hydrology Present? Yes No Security Present? Yes No Security Present?  ###################################	YST Datum: NAN K3
Are Vegetation Soil or Hydrology ND naturally problematic?  SUMMARY OF FINDINGS – Attach site map, showing sampling point to Hydrophytic Vegetation Present?  Yes No Hydrology Present? Yes No Wedland Hydrology Present? Yes No Wedland Hydrology Present?  Yes No Wedland Hydrology Present?  Yes No Wedland Hydrology Present?  Wedland Hydrology Present?  Yes N	VI classification:
Are Vegetation Soil or Hydrology ND naturally problematic?  SUMMARY OF FINDINGS — Attach site map, showing sampling point to Hydrophytic Vegetation Present?  Yes No Hydrology Present? Yes No Wedland Hydrology Present? Yes No Wedland Hydrology Present?  Wedland Hydrology Present? Yes No Wedland Hydrology Present? Yes No Wedland Hydrology Present?  Wedland Hydrology Present? Yes No Wedland Hydrology Present? Yes No Wedland Hydrology Present?  Wedland Hydrology Present? Yes No Wedland Hydrology Present?  Wedland Hydrology Present? Yes No Wedland Hydrology Present?  Yes No Wedland Hydrology Present?	(If no, explain in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No Hydrosoly Present? Yes No Wetland Hydrology Present Hydrology Present Hydrology Present Hydrology Present Hydrology Present Hydrology Present	
SUMMARY OF FINDINGS – Attach site map, showing sampling point to Hydrophytic Vegetation Present? Yes No Welland Hydrology Present Hydrology Pres	needed, explain any answers in Remarks.)
Hydric Soll Present? Wetland Hydrology Present? Wetland Hydrology Present? Yes No	
Hydric Soil Present?  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No No Is the Sampled Area within Wetland Hydrology Present?  WEGETATION – Use scientific names of plants.  Tree Stratum (Plot size: )  Absolute Dominant Indicator Species? Status  Cover Species?  Status  = Total Cover   For Stratum (Plot size: )	cations, transects, important features, e
Wetland Hydrology Present? Yes No X  Remarks:  WEGETATION – Use scientific names of plants.  Tree Stratum (Plot size: )	
WEGETATION - Use scientific names of plants.    Absolute   Dominant   Indicator   Species?   Status	n a Wetland? Yes No
### Absolute Dominant Indicator Species? Status    Absolute Species? Status	
WEGETATION - Use scientific names of plants.    Tree Stratum (Plot size:	
VEGETATION – Use scientific names of plants.  Tree Stratum (Plot size:)	
Absolute Dominant Indicator % Cover Species? Status  apling/Shrub Stratum (Plot size: )  arb Stratum (Plot size: )  but Absolute Dominant Indicator Status  arb Stratum (Plot size: )  arb Stratum (Plot size: )  but Absolute Dominant Indicator Species? Status  arb Stratum (Plot size: )  arb Stratum (Plot size: )  but Absolute Dominant Indicator Species? Status  arb Stratum (Plot size: )  arb Stratum (Plot size: )  but Absolute Dominant Indicator Species? Status  arb Stratum (Plot size: )  but Absolute Dominant Indicator Species? Status  arb Stratum (Plot size: )  but Absolute Dominant Indicator Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  but Absolute Species? Status  arb Stratum (Plot size: )  but Absolute Species? Status  but Absolute Species Species Species Status  but Absolute Species Speci	
Absolute Dominant Indicator % Cover Species? Status  apling/Shrub Stratum (Plot size: )  apling/Shrub Stratum (Plot size: )  arb Stratum (Plot size: )  but Total Cover    arb Stratum (Plot size: )  arb Stratum (Plot size: )  but Total Cover    arb Stratum (Plot size: )  arb Stratum (Plot size: )  but Total Cover    arb Stratum (Plot size: )  arb Stratum (Plot size: )  arb Stratum (Plot size: )  but Total Cover    but Total Cover    arb Stratum (Plot size: )  but Total Cover    arb Stratum (Plot size: )	
ree Stratum (Plot size: ) % Cover Species? Status  apling/Shrub Stratum (Plot size: ) = Total Cover  apling/Shrub Stratum (Plot size: )   = Total Cover	Dominance Test worksheet:
apling/Shrub Stratum (Plot size:)  = Total Cover  = Total Cover  = Total Cover    Compared Solution	
apling/Shrub Stratum (Plot size:)  = Total Cover  = Total Cover    Post size:	Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
apling/Shrub Stratum (Plot size:) = Total Cover    Total Cover	
apling/Shrub Stratum (Plot size: )  = Total Cover  = Total Cover    Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Cover   Co	Total Number of Dominant Species Across All Strata: (B)
= Total Cover  = Total Cover    Stratum (Plot size:	Percent of Dominant Species
apling/Shrub Stratum (Plot size: )  = Total Cover    Fig.	That Are OBL, FACW, or FAC: (A/B)
apling/Shrub Stratum (Plot size:)  = Total Cover    Plot size:	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
= Total Cover  (PN TOUMER SOLTITION 4D Y UPL  P  H  add Vine Stratum (Plot size: )  Table Cover    Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   Total Cover   T	Decorate and the state of the s
## Total Cover    Formula   Formula	Prevalence Index worksheet:
= Total Cover    Protestatum (Plot size:   M2   )	Total % Cover of: Multiply by:
= Total Cover  (Plot size: \m2)  (PN + OULLE C SOLTITICAL 4D Y DPL  H  add Vine Stratum (Plot size: )  Table Cover	OBL species x 1 =
Total Cover    Total Cover   Figure   F	FACW species x 2 =
= Total Cover    Plot size: \m^2   = Total Cover	FAC species x3 =
Photosize: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
Centoured Soltitials 40 Y UPL P  H  Delta Stratum (Plot size: )  Table 10 Y UPL P  H  H  H  H  H  H  H  H  H  H  H  H  H	77.
Hy Vine Stratum (Piot size: )	JPL species 40 x 5 = 200
Hy P Hy P P P P P P P P P P P P P P P P	Column Totals: 40 (A) 200 (B)
hdy Vine Stratum (Plot size: )  Total Cover be	Prevalence Index = B/A =
dy Vine Stratum (Piot size: )	tovalence ludex = P/V =
dy Vine Stratum (Plot size: )	lydrophytic Vegetation Indicators:
dy Vine Stratum (Plot size: )	
dy Vine Stratum (Piot size: )	1 - Rapid Test for Hydrophytic Vegetation
dy Vine Stratum (Plot size: )	2 - Dominance Test is >50%
dy Vine Stratum (Piot size: ) = Total Cover be	3 - Prevalence index is ≤3.01
dy Vine Stratum (Plot size: ) = Total Cover be	4 - Morphological Adaptations1 (Provide supporting
dy Vine Stratum (Piot size: ) = Total Cover be	data in Remarks or on a separate sheet)
dy Vine Stratum (Plot size: ) = Total Cover be	5 - Wetland Non-Vascular Plants ¹
dy Vine Stratum (Piot size: ) be	Problematic Hydrophytic Vegetation ¹ (Explain)
Table Community	ndicators of hydric soil and wetland hydrology must
Total Community of the Park	present, unless disturbed or problematic.
Tayl Cours	
Total Cause	
Va.	rdrophytic
are Ground in Herb Stratum	getation
Pre	esent? Yes No
narks:	<del></del>
ans.	

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SOIL Profile Desc	ription: (Describe	e to the depth	needed to documen	nt the indicator or	confirm the a	bsence of indicators.	)
Depth	Matrix		Re	edox reatures	Loc ²	Tollura	Remarks
(inches)_	Color (moist)	%	Color (moist)	% Type'		CANAL LAND	T CONTROLLED
0-12	104R3/3	100			9	A Secretary Constitution	<u>''^'</u>
						DOWN	
1a-18	IDYR314	100				ZUVVIII	
	7 ' '				_		<u></u>
			<u> </u>				
	<del></del>						
						² Location: PL=Pore	Lining M-Matrix
¹ Type: C=C	oncentration, D=De	epletion, RM=R	Reduced Matrix, CS=C	Covered or Coated	Sand Grains.		
Hadria Cail	Indicators: /Ann	licable to all I	RRs, unless otherw	rise noted.)	Inc	licators for Problemat	ic Hydric Soils³:
-		ilicable to all E				2 cm Muck (A10)	
Histoso			Sandy Redox (S5)	**		Red Parent Material (	TF21
	pipedon (A2)		Stripped Matrix (S6	5) 	. DA 1)	Very Shallow Dark Su	rface (TF12)
Black H	listic (A3)	-	Loamy Mucky Mine	araı (⊏ı) (except M	LICE 1/	Other (Explain in Rem	arks)
Hydroge	en Sulfide (A4)		Loamy Gleyed Mat		_	Sales (Expedit in Inch.	
	d Below Dark Surf	ace (A11)	Depleted Matrix (F:	3) (EE)		3Indicators of hydroph	vtic vegetation and
Thick D	ark Surface (A12)		Redox Dark Surface			wetland hydrology mu	st be present.
	Mucky Mineral (S1)		Depleted Dark Surf			unless disturbed or pr	oblematic
Sandy (	Gleyed Matrix (S4)		Redox Depressions	S (F0)		dilicos diotorpos di pi	
							1 4
Restrictive La	ayer (if present):				0 - 11 D	Yes	No X
Type:				Hydric	Soil Present	165	- 110
Depth (Inc	hes):						·
				<u> </u>			
Remarks:							
		`	- Mark				
		no '	ntosibus				
	····						
HYDROLOG							
	Y						
		<u> </u>					
Wetland Hvd	rology indicators:	: one required; c	heck all that apply)			ondary Indicators (2 or	more required)
Wetland Hvd	rology indicators:	: one required; c	heck all that apply) Water-Stained	Leaves (B9) (exce	pt	Water-Stained Leaves	more required) (B9) (MLRA 1, 2,
Wetland Hyde Primary Indica	rology Indicators: ators (minimum of o	: one required; c	Water-Stained MLRA 1, 2, 4A	, and 4B)	pt	Water-Stained Leaves ( 4A, and 4B)	(B9) ( <b>MLRA 1, 2,</b>
Wetland Hyde Primary Indica Surface W	rology Indicators: ators (minimum of d ater (A1)	: one required; c	Water-Stained  MLRA 1, 2, 4A  Sait Crust (B11	<b>, and 4B</b> ) 1)	pt	Water-Stained Leaves ( <b>4A, and 4B)</b> Drainage Patterns (B10	(B9) ( <b>MLRA 1, 2,</b> ))
Primary Indica  Surface W High Wate	rology indicators: ators (minimum of d ater (A1) or Table (A2)	: one required; c	Water-Stained  MLRA 1, 2, 4A  Sait Crust (B11  Aquatic Inverte	<b>i, and 4B</b> ) 1) abrates (B13)	pt	Water-Stained Leaves ( 4 <b>A, and 4B)</b> Drainage Patterns (B10 Dry-Season Water Tab	(B9) ( <b>MLRA 1, 2,</b> )) le (C2)
Primary Indica  Surface W  High Wate  Saturation	rology indicators: ators (minimum of d rater (A1) or Table (A2) (A3)	: one required; c	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverte Hydrogen Sulfi	n, and 4B) 1) ebrates (B13) ide Odor (C1)	pt	Water-Stained Leaves ( <b>4A, and 4B)</b> Drainage Patterns (B10	(B9) ( <b>MLRA 1, 2,</b> )) le (C2)
Primary Indica  Surface W High Wate	rology indicators: ators (minimum of d rater (A1) or Table (A2) (A3)	: one required; c	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo	<b>i, and 4B</b> ) 1) abrates (B13)	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A	(B9) (MLRA 1, 2, I) le (C2) erial Imagery (C9)
Primary Indicates Surface W High Wate Saturation Water Mar	rology indicators: ators (minimum of d rater (A1) or Table (A2) (A3) rks (B1)	: one required; c	Water-Stained MLRA 1, 2, 4A Sait Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Roots (C3)	a, and 4B) 1) ebrates (B13) ide Odor (C1) ospheres along Livi	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I	(B9) (MLRA 1, 2, I) le (C2) erial Imagery (C9)
Primary Indicate Surface W High Wate Saturation Water Mar Sediment	rology indicators: ators (minimum of d rater (A1) or Table (A2) (A3) rks (B1) Deposits (B2)	: one required; c	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverted Hydrogen Sulfi Oxidized Rhizo Roots (C3) Presence of Ro	a, and 4B)  1)  brates (B13)  ide Odor (C1)  bspheres along Livi  educed Iron (C4)	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A	(B9) (MLRA 1, 2, I) le (C2) erial Imagery (C9)
Primary Indicates Surface W High Wate Saturation Water Mar	rology indicators: ators (minimum of d rater (A1) or Table (A2) (A3) rks (B1) Deposits (B2)	: one required; c	Water-Stained MLRA 1, 2, 4A Sait Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re	a, and 4B) 1) ebrates (B13) ide Odor (C1) ospheres along Livi	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (D Shallow Aquitard (D3)	(B9) (MLRA 1, 2, I) le (C2) erial Imagery (C9) C2)
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Wetland Hyd Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depor	rology indicators: ators (minimum of dater (A1) or Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4)	: one required; c	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhize Roots (C3) Presence of Ri Recent Iron Re Soils (C6) Stunted or Stre (LRR A)	a, and 4B)  1)  abrates (B13)  ide Odor (C1)  aspheres along Livi  educed Iron (C4)  eduction in Tilled  essed Plants (D1)	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on Ar Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Art Mounds (D	(B9) (MLRA 1, 2, 0) le (C2) erial Imagery (C9) 02)
Wetland Hyd Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depoi	rology indicators: ators (minimum of clater (A1) or Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6)	one required; c	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre	a, and 4B)  1)  abrates (B13)  ide Odor (C1)  aspheres along Livi  educed Iron (C4)  eduction in Tilled  essed Plants (D1)	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (D Shallow Aquitard (D3)	(B9) (MLRA 1, 2, 0) le (C2) erial Imagery (C9) 02)
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Wetland Hydi Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depoi	rology indicators: ators (minimum of clater (A1) or Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6)	one required; c	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhized Roots (C3) Presence of R Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain	a, and 4B)  1)  abrates (B13)  ide Odor (C1)  aspheres along Livi  educed Iron (C4)  eduction in Tilled  essed Plants (D1)	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on Ar Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Art Mounds (D	(B9) (MLRA 1, 2, 0) le (C2) erial Imagery (C9) 02)
Wetland Hyde Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depoi	rology indicators: ators (minimum of control	one required; c	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhized Roots (C3) Presence of R Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain	a, and 4B)  1)  abrates (B13)  ide Odor (C1)  aspheres along Livi  educed Iron (C4)  eduction in Tilled  essed Plants (D1)	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on Ar Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Art Mounds (D	(B9) (MLRA 1, 2, 0) le (C2) erial Imagery (C9) 02)
Wetland Hyd Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depor Algal Mat Iron Depor Surface S Inundation Sparsely \ Field Observer	rology indicators: ators (minimum of control	magery (B7) e Surface (B8)	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhized Roots (C3) Presence of R Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain	a, and 4B)  1)  abrates (B13)  ide Odor (C1)  aspheres along Livi  educed Iron (C4)  eduction in Tilled  essed Plants (D1)	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on Ar Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) vs (D7)
Wetland Hyd Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depoi Algal Mate Iron Depoi Surface S Inundation Sparsely \ Field Observ Surface Wate	rology Indicators: ators (minimum of cators (minimu	magery (B7) e Surface (B8)	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhized Roots (C3) Presence of R Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain	a, and 4B)  1)  abrates (B13)  ide Odor (C1)  aspheres along Livi  educed Iron (C4)  eduction in Tilled  essed Plants (D1)	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on Ar Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 0) le (C2) erial Imagery (C9) 02)
Wetland Hyd Primary Indica  Surface W High Wate Saturation Water Mar  Sediment Drift Depor Algal Mat Iron Depor Surface S Inundation Sparsely \ Field Observ Surface Water Water Table	rology Indicators: ators (minimum of control of the	magery (B7) e Surface (B8)	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhized Roots (C3) Presence of R Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain	a, and 4B)  1)  abrates (B13)  ide Odor (C1)  aspheres along Livi  educed Iron (C4)  eduction in Tilled  essed Plants (D1)	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on Ar Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) vs (D7)
Surface W High Wate Saturation Water Mar  Sediment Drift Depor Algal Mate Iron Depor Surface Se Inundation Sparsely  Field Observ Surface Water Water Table I Saturation Pr	rology Indicators: ators (minimum of cators (minimu	magery (B7) e Surface (B8) esNo	Water-Stained MLRA 1, 2, 4A Sait Crust (B1 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizel Roots (C3) Presence of R Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain  Depth (inches):	a, and 4B)  1)  abrates (B13)  ide Odor (C1)  aspheres along Livi  educed Iron (C4)  eduction in Tilled  essed Plants (D1)	ing	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on Ar Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) vs (D7)
Wetland Hydi Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depor Algal Mate Iron Depor Surface S Inundation Sparsely V Field Observ Surface Wate Water Table I Saturation Pr (includes cap	rology indicators: ators (minimum of control	imagery (B7) e Surface (B8) esNo	Water-Stained MLRA 1, 2, 4A Sait Crust (B1 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Roots (C3) Presence of R Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain  Depth (inches): Depth (inches):	a, and 4B) 1) abrates (B13) ide Odor (C1) aspheres along Liv educed Iron (C4) eduction in Tilled essed Plants (D1) a in Remarks)	ing —	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) vs (D7)
Wetland Hyde Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depor Algal Mate Iron Depor Surface S Inundation Sparsely V Field Observ Surface Wate Water Table I Saturation Pr (includes cap	rology indicators: ators (minimum of control	imagery (B7) e Surface (B8) esNo	Water-Stained MLRA 1, 2, 4A Sait Crust (B1 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizel Roots (C3) Presence of R Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain  Depth (inches):	a, and 4B) 1) abrates (B13) ide Odor (C1) aspheres along Liv educed Iron (C4) eduction in Tilled essed Plants (D1) a in Remarks)	ing —	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) vs (D7)
Wetland Hyde Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depor Algal Mate Iron Depor Surface S Inundation Sparsely V Field Observ Surface Water Table I Saturation Pr (includes cap	rology indicators: ators (minimum of control	imagery (B7) e Surface (B8) esNo	Water-Stained MLRA 1, 2, 4A Sait Crust (B1 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Roots (C3) Presence of R Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain  Depth (inches): Depth (inches):	a, and 4B) 1) abrates (B13) ide Odor (C1) aspheres along Liv educed Iron (C4) eduction in Tilled essed Plants (D1) a in Remarks)	ing —	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) vs (D7)
Wettand Hydi Primary Indica  Surface W High Wate Saturation Water Mar  Sediment Drift Depor Algal Mate Iron Depor Surface S Inundation Sparsely V  Field Observ Surface Water Water Table I Saturation Pr (includes cap Describe Reco	rology indicators: ators (minimum of control	imagery (B7) e Surface (B8) esNo	Water-Stained MLRA 1, 2, 4A Sait Crust (B1 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Roots (C3) Presence of R Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain  Depth (inches): Depth (inches):	a, and 4B) 1) abrates (B13) ide Odor (C1) aspheres along Liv educed Iron (C4) eduction in Tilled essed Plants (D1) a in Remarks)	ing —	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) srial Imagery (C9) D2) 6) (LRR A) vs (D7)
Surface W High Wate Saturation Water Mar Sediment Drift Depo Algal Mate Iron Depo Surface Sediment Iron Depo Surface Sediment Sparsely V Field Observ Surface Water Water Table I Saturation Pr Sincludes cap	rology indicators: ators (minimum of control	imagery (B7) e Surface (B8) esNo	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverted Hydrogen Sulfi Oxidized Rhizor Roots (C3) Presence of Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain  Depth (inches): Depth (inches): Depth (inches):	a, and 4B) 1) abrates (B13) ide Odor (C1) aspheres along Liv educed Iron (C4) eduction in Tilled essed Plants (D1) a in Remarks)	Wetland Hyd	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) srial Imagery (C9) D2) 6) (LRR A) vs (D7)
Wetland Hydi Primary Indica  Surface W High Wate Saturation Water Mar  Sediment Drift Depor Algal Mate Iron Depor Surface Sell Inundation Sparsely V  Field Observ Surface Water Water Table I Saturation Pr (includes cap Describe Reco	rology indicators: ators (minimum of control	imagery (B7) e Surface (B8) esNo	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverted Hydrogen Sulfi Oxidized Rhizor Roots (C3) Presence of Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain  Depth (inches): Depth (inches): Depth (inches):	a, and 4B) 1) abrates (B13) ide Odor (C1) aspheres along Liv educed Iron (C4) eduction in Tilled essed Plants (D1) a in Remarks)	Wetland Hyd	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) srial Imagery (C9) D2) 6) (LRR A) vs (D7)
Wetland Hydi Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depor Algal Mate Iron Depor Surface Selinundation Sparsely V Field Observ Surface Water Table I Saturation Pr (includes cap Describe Reco	rology indicators: ators (minimum of control	imagery (B7) e Surface (B8) esNo	Water-Stained MLRA 1, 2, 4A Sait Crust (B11 Aquatic Inverted Hydrogen Sulfi Oxidized Rhizor Roots (C3) Presence of Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain  Depth (inches): Depth (inches): Depth (inches):	a, and 4B) 1) abrates (B13) ide Odor (C1) aspheres along Liv educed Iron (C4) eduction in Tilled essed Plants (D1) a in Remarks)	Wetland Hyd	Water-Stained Leaves ( 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) srial Imagery (C9) D2) 6) (LRR A) vs (D7)

	ATION DATA FORM - Western	
Project/Site: HAVERANCH	City/County: Siskiyou C	6/1
Applicant/Owner: Has ct Paracle	City/County: 313 11010	9. Sampling Date: 0/23/2016
Subregion (LPP): MLRA 220	Local relief (concave, conve	- 75 N
Soil Man I Init Name: 120 100 0 4 1	_ Lat: 132,378056 Long: 41,6	Datum: 14H1/13
Soil Map Unit Name: 187 many	Stony warn	NWI classification:
Are climatic / hydrologic conditions on the site to	ypical for this time of year? Yes X No	(If no, explain in Remarks.)
	Ara Chantilitain Vitali Billi Billi Billi Ceri	"Normal Circumstance Paris to 34 V
, or Hydro	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach s	ite man showing compline	t locations, transects, important features, e
Hydrophytic Vegetation Present? Yes	No No	t locations, transects, important features, c
Trydic Soil Fresetter Yes	No Is the Sampled Area w	ithin a Wetland? Yes No No
	No	
Remarks:		
ditch		
1 1111		
VEGETATION – Use scientific names	of plante	
· · · · · · · · · · · · · · · · · · ·		
Tree Stratum (Plot size:)	Absolute Dominant Indicator % Cover Species? Status	
		Number of Dominant Species
		That Are OBL, FACW, or FAC: (A)
		Total Number of Dominant Species Across All Strata: (B)
		Percent of Dominant Species (B)
		That Are OBL, FACW, or FAC: (A/B)
	- Total Co	(100)
apling/Shrub Stratum (Plot size:)	= Total Cover	Prevalence Index worksheet:
		1
		Total % Cover of: Multiply by:
		OBL species x1=
		FACW species x 2 =
		FAC species x3 =
1 / 1	= Total Cover	FACU species x 4 =
ab Stratum (Plot size:		UPL species x 5 =
		Column Totals: (A) (B)
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	ମଣ୍ଡିଆ ^{ବିଶ୍} ରମନ୍ତିଆ	per .
		1 - Rapid Test for Hydrophytic Vegetation
	स्य प्र अल्लाह	2 - Dominance Test is >50%
	No. 11	3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
*		5 - Wetland Non-Vascular Plants ¹
	1 10 W W W W W	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	
ody Vine Stratum (Plat size:)		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	<u> </u>	Protein anioss sistained of problematic.
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	All the
	= Total Cover	Hydrophytic
are Ground in Herb Stratum		Vegetation Procent2
	· ·	Present? Yes No
arks:		40
an illataill	chan Mapruf (d)	4 ica car
Open of no of	anal UP vea	\useparent
▼ † · · · · · · · · · · · · · · · · · ·	STREET AND THE SECOND	· · ·
	C CINO (88)	

CO11							च् <u>राध</u> ्ययाहरू		<u></u> _
SOIL Profile Desi	cription: (Describe to	the depth	needed to docu	ment the indi	cator or co	onfirm the a	bsence of indica	tors.)	
Depth	<u> Matrix</u>			Redox reall	N G2	Loc²	Texture	Rema	ırks
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type			_,	
0-10	1042514	95	542416	5	<del></del>	<u> </u>	Sandy	<u>cray</u>	
10-18	104RP/4	100					layloom		
70 0		-					· /		
				-					
						•			
				-					
							<u></u>		
	Concentration, D=Depl	-tion CINA-C	Paduand Matrix C	S=Covered o	Coated Sa	and Grains.	² Location: PL=	Pore Lining, M=	Matrix.
						inc	licators for Probl	ematic Hydric S	oils³:
Hydric Soi	il Indicators: (Applic	able to all I			1-)		2 cm Muck (A10)		
Histoso		X)	_ Sandy Redox (	S5) (S6)			Red Parent Mate	rial (TF2)	
	Epipedon (A2)	_	Stripped Matrix Loamy Mucky	Mineral (F1) (4	except MLI	RA 1)	Very Shallow Dai	rk Surface (TF12	2)
— Progress	Histic (A3) gen Sulfide (A4)	-	Loamy Gleyed	Matrix (F2)			Other (Explain in	Remarks)	
Deplet	ed Below Dark Surfac	e (A11) —	Depleted Matri	x (F3)			3	المساور والمراورون	ion and
Thick I	Dark Surface (A12)		Redox Dark Su	ırface (F6)			³ Indicators of hyd wetland hydrolog	ropnytic vegetat v must be prese	ori ario nt.
	Mucky Mineral (S1)	-	Depleted Dark				unless disturbed	or problematic	114)
Sandy	Gleyed Matrix (S4)		Redox Depress	aiviia (FO)				•	
Restrictive I	.ayer (if present):						1.	$\wedge$	
	who fee broomsty.				Hydric S	oil Present	7 Yes <u>X</u>	No	
Type: Depth (in	ches):	<del></del>							
Jopan (all	5.00				A				
Remarks:	Obj Chille	d .	A 466	-	0				
	11 cm 15 00	Jim	aur	carra	ditor	•			
₁ J 8	il emoked	10	· WX	cavate				<del> </del>	
•									
HYDROLO	drology Indicators:							(2 or more res. de	nd)
Primary India	cators (minimum of one	e required; o	check all that appl	y)			ondary Indicators Water-Stained Lea	(2 or more requir	1. 2.
- 4			Water-Star	ned Leaves (t	89) ( <b>excep</b> i		γγα(e)-Stallieu Let 4 <b>A, and 4B</b> )	1003 (DO) (MILIO	,,
	Vater (A1)		Salt Crust	2 <b>, 4A, and 4B</b> ) (R11)	,		Drainage Patterns	(B10)	
	er Table (A2)			vertebrates (B	13)		Dry-Season Water	r Table (C2)	
Saturation Water Ma			Hydrogen	Sulfide Odor (	(C1)		Saturation Visible	on Aerial Image	y (C9)
- 440 (C) IAIG	(m · /		Oxidized F	Rhizospheres :	along Living	g	Geomorphic Posit	ion (D2)	
	t Deposits (B2)		Roots (C3)	) . (	(04)		Shallow Aquitard	(D3)	
Drift Depo	osits (B3)		- Presence	of Reduced In In Reduction in	on (U4) n Tilled	_	Ottomow sudance .	(==)	
Aleel Med	t or Crust (B4)		Soils (C6)		11 111100		<b>FAC-Neutral Test</b>	(D5)	
Algai Wal	( Or Crust (D+)		Stunted or	Stressed Pla	nts (D1)		m to all the block	de (DC) (LDD A)	
iron Depo	osits (B5)		(LRR A)	=			Raised Ant Mount Frost-Heave Hum	us (Do) ( <b>Likik iA</b> ) mocks (D7)	
Surface S	Soil Cracks (B6)	/P.T.	Other (Exp	plain in Rema	rks)	-	I TOST-HOUVE HUIT		
inundatio	on Visible on Aerial Im	agery (B7)	•						
Sparsely	Vegetated Concave S	unace (DO)	•						
Field Obser	vations:			M.				A _	
Surface Wat		> No	Depth (inche		A		41 <b>% -</b> - <b>-</b>	<b>V. X</b>	No
Water Table		No No	Depth (inche			Vetland Hyd	drology Present?	Tes	MO
Saturation P	Present?	<u> </u>							
(includes ca	pillary fringe) Yes	No No	Depth (inche	25). hotos =====	un inencette	ne) if eveil-	ahle.		
Describe Rec	orded Data (stream ga	auge, monit	oring well, aerial p	notos, previou	us inspectio	nio, ii avalli	auto.		
	<u> </u>								
Remarks:									
1									
Į									

	mountains, valleys, and Coast Region
Project/Site: Hart Ranch City/County: Siskiyou	8/22/2010
Applicant/Owner: Hart Ranch State: CA Sanch	5. Sampling Date: 0/23/2016
Applicant/Owner: Hart Ranch State: CA Samu Investigator(s): State: Section, Township, Range: Landform (hillslope, terrace, etc.):	bling Point:
Landform (hillslope, terrace, etc.): \( \sqrt{1} \sqrt{1} \sqrt{2} \)  Local relief (concave, conv.)	ex papely 1 sect 1,2+3
Subregion (LRR): MLRA 228 Lat: 133,38039 Long: 41.6 Soil Map Unit Name: 157 000 pt 57 pt 1/20 ps	ex, none): Stope (%):
Soil Map Unit Name: 187 many Stony Loam	NWI classification:
All of which is the control of the site typical for this find of year? Ver V	Minimum and the second
JOH JOHN JOHN SIGNIFICATIV MISTIPPARTY AND	*Name Of Control of the Control of t
Are Vegetation, Soil, or Hydrology No naturally problematic?	(If needed, explain any answers in Remarks.)
	,
SUMMARY OF FINDINGS – Attach site map showing sampling poin Hydrophytic Vegetation Present? Yes No X	nt locations, transects, important features, etc
Hydric Soil Present?	
Wetland Hydrology Present? Yes No	/thin a Wetland? Yes No
Remarks:	
libland and it and	
Lyland Sitchbank	•
VECETATION Has activities	
VEGETATION – Use scientific names of plants.	
Tree Stratum (Plot size: ) Absolute Dominant Indicator	Dominance Test worksheet:
1	Number of Dominant Species
2.	That Are OBL, FACW, or FAC: (A)
3.	Total Number of Dominant
4.	Species Across All Strate: (B) Percent of Dominant Species
	That Are OBL, FACW, or FAC:  (A/B)
- 7-410	(145)
Sapling/Shrub Stratum (Plot size: = Total Cover	Prevalence Index worksheet:
1.	
2.	Total % Cover of: Multiply by:
3.	OBL species x1 =
4.	FACW species x 2 =
5.	FAC species x3 =
= Total Cover	FACU species x 4 =
lerb Stratum (Plot size: M)	UPL species <u>S0</u> x 5 = <u>Z8 2</u>
Centaurea solfialis so U UPL	Column Totals: 50 (A) 200 (B)
2.	Prevalence Index = B/A =
	1 TOTALIONOS INICEX = BIA =
	Hydrophytic Vegetation Indicators:
A RECORD THE PROPERTY.	1 - Rapid Test for Hydrophytic Vegetation
he as a porte of	2 · Dominance Test is >50%
	3 - Prevalence Index is ≤3.01
	4 - Morphological Adaptations¹ (Provide supporting
	data in Remarks or on a separate sheet)
0	5 - Wetland Non-Vascular Plants ¹
	Problematic Hydrophytic Vegetation¹ (Explain)
SD = Total Cover	Indicators of hydric soil and wetland hydrology must
Voody Vine Stratum (Plot sine:)	be present, unless disturbed or problematic.
	W. A. Salaka
3 16 17 20	Hydrophytic
Bare Ground in Herb Stratum = Total Cover	Vegetation
	Present? Yes No
emarks:	
augins.	
<del></del>	1

OIL Profile Description: (Descr	the to the donth	needed to document the inc	dicator or conf	irm the absence of indicator	5.)
Depth Mai	ibe to the debut	Redox Fea	tures		
(inches) Color (moist		Color (moist) %		Loc ² Texture	Remarks
	<del></del> '			granul	cam
0-10 104R\$13	<u>3 100 </u>			- growing	
10 VOSJU	100				. <u> </u>
10/647	_ '=-				
				<del></del>	
<del></del>		<del></del>		<del></del>	-
					<del></del>
					<del></del> -
			er Contod Sans	Grains 2 ocation: Pl =Po	ore Lining, M=Matrix.
Type: C=Concentration, D=	Depletion, RM=R	educed Matrix, CS=Covered	or Coaled Sanc		
Hydric Soil Indicators: (A	policable to all L	.RRs, unless otherwise note	ed.)	Indicators for Problem	natic Hydric Soils":
	<b></b>		-	2 cm Muck (A10)	
Histosol (A1)	-	Sandy Redox (S5) Stripped Matrix (S6)		Red Parent Materia	I (TF2)
Histic Epipedon (A2)	-	Loamy Mucky Mineral (F1)	(except Mt RA		Surface (TF12)
Black Histic (A3)		Loamy Gleyed Matrix (F2)	/avealer meres	Other (Explain in Re	emarks)
Hydrogen Sulfide (A4)					•
Depleted Below Dark S	пцасе (VJ1) ——	Depleted Matrix (F3) Redox Dark Surface (F6)		3Indicators of hydro	phytic vegetation and
Thick Dark Surface (A1		Depleted Dark Surface (F7	1	wetland hydrology r	nust be present,
Sandy Mucky Mineral (		Redox Depressions (F8)	,	unless disturbed or	problematic
Sandy Gleyed Matrix (S	·4)	_ Redux Depressions (1 0)	1		·
	٠.		•		<b>.</b>
Restrictive Layer (if present	<b>}</b> ;		Hydric Soil	Present? Yes	No X
Type:		<del></del>	Hydric soil	rieseiki 100	
Depth (inches):					
emarks:					
		noindicar	S C Y		
YDROLOGY			Inc.		
Wetland Hydrology Indicato	rs:		V Laser	Secondary Indicators (2)	or more required)
	rs:	heck all that apply)		Secondary Indicators (2	or more required)
Wetland Hydrology Indicato Primary Indicators (minimum	rs:	heck all that apply) Water-Stained Leaves	(B9) (except	Water-Stained Leave	or more required) is (B9) (MLRA 1, 2,
Wetland Hydrology Indicato Primary Indicators (minimum Surface Water (A1)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4	(B9) (except	Water-Stained Leave	s (B9) (MLRA 1, 2,
Wetland Hydrology Indicato Primary Indicators (minimum of Surface Water (A1) High Water Table (A2)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)	(B9) (except	Water-Stained Leave 4A, and 4B) Drainage Patterns (B	s (B9) ( <b>MLRA 1, 2,</b> :10)
Wetland Hydrology Indicato Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (	(B9) (except B)	Water-Stained Leave 4A, and 4B) Drainage Patterns (B	s (B9) (MLRA 1, 2, :10) able (C2)
Wetland Hydrology Indicato Primary Indicators (minimum  Surface Water (A1)  High Water Table (A2)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odor	(B9) (except B) B13)	Water-Stained Leave 4A, and 4B) Drainage Patterns (B	s (B9) (MLRA 1, 2, :10) able (C2)
Vetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres	(B9) (except B) B13)	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on	is (B9) (MLRA 1, 2, i10) able (C2) Aerial Imagery (C9)
Vetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)	(B9) (except B) B13) r (C1) s along Living	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position	es (B9) (MLRA 1, 2, e10) able (C2) Aerial Imagery (C9)
Vetland Hydrology Indicato Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced	(B9) (except B) B13) r (C1) s along Living fron (C4)	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on	es (B9) (MLRA 1, 2, e10) able (C2) Aerial Imagery (C9)
Vetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent Iron Reduction	(B9) (except B) B13) r (C1) s along Living fron (C4)	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3	es (B9) (MLRA 1, 2, e10) able (C2) Aerial Imagery (C9) (D2)
Vetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6)	(B9) (except B) B13) r (C1) s along Living fron (C4) in Tilled	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position	es (B9) (MLRA 1, 2, e10) able (C2) Aerial Imagery (C9) (D2)
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed Pi	(B9) (except B) B13) r (C1) s along Living fron (C4) in Tilled	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D	(S) (MLRA 1, 2, 110) able (C2) Aerial Imagery (C9) (D2)
Vetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5)	rs:	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoroxidized Rhizospheres  Roots (C3)  Presence of Reduced Recent Iron Reduction  Soils (C6)  Stunted or Stressed Pl	(B9) (except B) B13) r (C1) s along Living fron (C4) in Titled	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds	(D2) (D6) (LRR A)
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6)	rs: of one required; c	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed Pi	(B9) (except B) B13) r (C1) s along Living fron (C4) in Titled	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D	(D2) (D6) (LRR A)
Vetland Hydrology Indicator Primary Indicators (minimum of the primary Indicators (minimum of the primary Indicators (minimum of the primary Indicators (Ma)  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 Aeric	rs: of one required; c	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoroxidized Rhizospheres  Roots (C3)  Presence of Reduced Recent Iron Reduction  Soils (C6)  Stunted or Stressed Pl	(B9) (except B) B13) r (C1) s along Living fron (C4) in Titled	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds	(D2) (D6) (LRR A)
Vetland Hydrology Indicator Primary Indicators (minimum of the primary Indicators (minimum of the primary Indicators (minimum of the primary Indicators (Ma)  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)	rs: of one required; c	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoroxidized Rhizospheres  Roots (C3)  Presence of Reduced Recent Iron Reduction  Soils (C6)  Stunted or Stressed Pl	(B9) (except B) B13) r (C1) s along Living fron (C4) in Titled	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds	(D2) (D6) (LRR A)
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeric	rs: of one required; c	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoroxidized Rhizospheres  Roots (C3)  Presence of Reduced Recent Iron Reduction  Soils (C6)  Stunted or Stressed Pl	(B9) (except B) B13) r (C1) s along Living fron (C4) in Titled	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds	(D2) (D6) (LRR A)
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeric	rs: of one required; co al Imagery (B7) ave Surface (B8)	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent iron Reduction Soils (C6) Stunted or Stressed Pi (LRR A) Other (Explain In Rem	(B9) (except B) B13) r (C1) s along Living fron (C4) in Titled	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds	(D2) (D6) (LRR A)
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeric Sparsely Vegetated Concerning	rs: of one required; c	heck all that apply)  Water-Stained Leaves MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoro Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent Iron Reduction Soils (C6)  Stunted or Stressed Place (LRR A)  Other (Explain in Rem	(B9) (except B) B13) r (C1) s along Living fron (C4) In Tilled lants (D1) arks)	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds Frost-Heave Hummo	(D2) (D6) (LRR A) (D6) (LRR A)
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeric Sparsely Vegetated Concerniance	rs: of one required; co al Imagery (B7) ave Surface (B8)	heck all that apply)  Water-Stained Leaves  MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent iron Reduction Soils (C6) Stunted or Stressed Pi (LRR A) Other (Explain In Rem	(B9) (except B) B13) r (C1) s along Living fron (C4) In Tilled lants (D1) arks)	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds	(D6) (LRR A)
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeric Sparsely Vegetated Concertications: Surface Water Present? Water Table Present?	rs: of one required; contained of the required; contained of the required; contained of the required of the re	heck all that apply)  Water-Stained Leaves MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoro Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent Iron Reduction Soils (C6)  Stunted or Stressed Place (LRR A)  Other (Explain In Rem	(B9) (except B) B13) r (C1) s along Living fron (C4) In Tilled lants (D1) arks)	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds Frost-Heave Hummo	(D2) (D6) (LRR A) (D6) (LRR A)
Wetland Hydrology Indicator Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeric Sparsely Vegetated Concerniations: Surface Water Present? Water Table Present? Vater Table Present? Vincludes capillary fringe)	al Imagery (B7) ave Surface (B8)  Yes No Yes No	heck all that apply)  Water-Stained Leaves MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoro Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent fron Reduction Soils (C6)  Stunted or Stressed Place (LRR A)  Other (Explain In Rem  Depth (inches):  Depth (inches):	(B9) (except B)  B13) r (C1) s along Living lron (C4) in Tilled lants (D1) arks)  Wet	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds Frost-Heave Hummo	(D2) (D6) (LRR A) (D6) (LRR A)
Vetland Hydrology Indicator Primary Indicators (minimum of Minimum	al Imagery (B7) ave Surface (B8)  Yes No Yes No	heck all that apply)  Water-Stained Leaves MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoro Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent fron Reduction Soils (C6)  Stunted or Stressed Place (LRR A)  Other (Explain In Rem  Depth (inches):  Depth (inches):	(B9) (except B)  B13) r (C1) s along Living lron (C4) in Tilled lants (D1) arks)  Wet	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds Frost-Heave Hummo	(D6) (LRR A) (D6) (LRR A) (D7)
Vetland Hydrology Indicator Primary Indicators (minimum of Minimum	al Imagery (B7) ave Surface (B8)  Yes No Yes No	heck all that apply)  Water-Stained Leaves MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoro Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent Iron Reduction Soils (C6)  Stunted or Stressed Place (LRR A)  Other (Explain In Rem	(B9) (except B)  B13) r (C1) s along Living lron (C4) in Tilled lants (D1) arks)  Wet	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds Frost-Heave Hummo	(D2) (D6) (LRR A) (D6) (LRR A)
Vetland Hydrology Indicator Primary Indicators (minimum of the primary Indicators (min	al Imagery (B7) ave Surface (B8)  Yes No Yes No	heck all that apply)  Water-Stained Leaves MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoro Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent fron Reduction Soils (C6)  Stunted or Stressed Place (LRR A)  Other (Explain In Rem  Depth (inches):  Depth (inches):	(B9) (except B) (B13) (C1) (B13) (C1) (B13) (B13) (C1) (B13) (C1) (C2) (In Titled C) (	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds Frost-Heave Hummo	yes (B9) (MLRA 1, 2, 110) able (C2) Aerial Imagery (C9) (D2) (D2) (D6) (LRR A) ocks (D7)  Yes No
Vetland Hydrology Indicator Primary Indicators (minimum of the primary Indicators (min	al Imagery (B7) ave Surface (B8)  Yes No Yes No	heck all that apply)  Water-Stained Leaves MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoro Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent fron Reduction Soils (C6)  Stunted or Stressed Place (LRR A)  Other (Explain In Rem  Depth (inches):  Depth (inches):	(B9) (except B) (B13) (C1) (B13) (C1) (B13) (B13) (C1) (B13) (C1) (C2) (In Titled C) (	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds Frost-Heave Hummo	yes (B9) (MLRA 1, 2, 110) able (C2) Aerial Imagery (C9) (D2) (D2) (D6) (LRR A) ocks (D7)  Yes No
Wetland Hydrology Indicator Primary Indicators (minimum of Primary Indicators (minimum of Primary Indicators (minimum of Primary Indicators (minimum of Primary Indicators (Ma)  Surface Water Table (A2)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aeric Sparsely Vegetated Concerns  Field Observations:  Surface Water Present?  Water Table Present?  Saturation Present?  (includes capillary fringe)	al Imagery (B7) ave Surface (B8)  Yes No Yes No	heck all that apply)  Water-Stained Leaves MLRA 1, 2, 4A, and 4I  Salt Crust (B11)  Aquatic Invertebrates (Hydrogen Sulfide Odoro Oxidized Rhizospheres Roots (C3)  Presence of Reduced Recent fron Reduction Soils (C6)  Stunted or Stressed Place (LRR A)  Other (Explain In Rem  Depth (inches):  Depth (inches):	(B9) (except B) (B13) (C1) (B13) (C1) (B13) (B13) (C1) (B13) (C1) (C2) (In Titled C) (	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Raised Ant Mounds Frost-Heave Hummo	yes (B9) (MLRA 1, 2, 110) able (C2) Aerial Imagery (C9) (D2) (D2) (D6) (LRR A) ocks (D7)  Yes No

O DETERMINATI	ION DATA FORM - Western I	Mountains, Valleys, and Coast Region
Project/Site: HAVE Kanch	city/county: Siskiyou C	8/20/
Applicant/Owner: Hart Ranch	City/County: 213 N. VOIL C	Sampling Date: 0/23/2010
Investigator(s): Port Ha. Kri loa	State: CA Samp	ling Point:
Investigator(s): Andrea Kaine  Landform (hillslope, terrace etc.): h. i.l.s.l.o.o.	_ Section, Township, Range:	45N K5W Sect 1,2+3
	- lead 31387 3 Long: Till	154:36 Datum: NHD 13
	A MARION STORY	ARRON I IN III
Are climatic / hydrologic conditions on the site typic  Are Vegetation	al for this time of year? Yes X No	(If no, explain in Remarks.)
, or mydrology	Significantly disturbed? Are	"Normal Circumstances" present? Yes X No
	No naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site	man showing compline as in	44. 41. 4
Hydrophytic Vegetation Present? Yes N	o X	t locations, transects, important features, e
Hydric Soil Present? Yes N	is the Sampled Area w	ithin a Wetland? Yes No
Wetland Hydrology Present?	o 🗻	103 100
Remarks:		
VEGETATION Hop galantists warmen at		
VEGETATION - Use scientific names of	plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
1.	% Cover Species? Status	Number of Dominant Species
2.		That Are OBL, FACW, or FAC: (A)
		Total Number of Dominant
3.		Species Across All Strata: (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
· ·		That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	
1.		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
3.		OBL species x 1 =
		FACW species x 2 =
		FAC species x3 =
		FACU species 70 x4 = 80
ferb Stratum (Plot size: 1)	= Total Cover	UPL species 3D x5= (ST)
	20 1. 500	Column Totals: (A) (B)
	20 4 FACU	Column Totals. Std (A) 230 (B)
Pseudoregreria Epicata	30 4 1 006	Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	e grant de la constant	1 - Rapid Test for Hydrophytic Vegetation
	24 J. 1989 A. W. S.	2 - Dominance Test is >50%
		3 - Prevalence Index is <3 01
	<b>**</b> **********************************	4 - Morphological Adaptations ¹ (Provide supporting
		data in Remarks or on a separate sheet)
)		5 - Wetland Non-Vascular Plants ¹
l		Problematic Hydrophytic Vegetation¹ (Explain)
<b>N</b>	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
oody Vine Stratum (Plot size: )		be present, unless disturbed or problematic.
	Service of Service	A STATE OF THE STA
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum		Vegetation Present? Yes No
	l	Present? Yes No
marks:		
		1

OIL							<u>इंट्रालायों का इसी</u>	1 Qa
Profile Des	cription: (Describe t	o the depth i	needed to docu	ment the inc	dicator or co	onfirm the a	bsence of indicators	•
Depth (inches)	Color (moist)	%	Color (moist)	%'	Type	Loc²	Texture	Remarks
(inches)			COIOI (MOIOI)				loam	
0-10	2.548.43	100	<del></del>		<del></del>		4	
10-18	2.54R63	100					loam	
							<del></del>	
	<del></del>					<del></del>		
	<del></del>							-
			<del></del>					
			advend Metrix C	S=Covered	or Coated St	and Grains	² Location: PL=Por	Lining, M=Matrix.
	Concentration, D=Depl					and Cramo.	icators for Problema	
Hydric Soi	il Indicators: (Applic	able to all L			ed.)	IIIQ		tic Hydric Colic .
Histoso			Sandy Redox (	S5)			2 cm Muck (A10) Red Parent Material (	TF21
	Epipedon (A2)		Stripped Matrix Loamy Mucky	( (56) Mineral /54\	(evcent MI	RA 1)	Very Shallow Dark Si	inface (TF12)
	Histic (A3)	÷====	Loamy Mucky Loamy Gleyed	Matrix (F1)	feveshr mr		Other (Explain in Rer	narks)
— Hydrog	jen Sulfide (A4) ed Below Dark Surfac	e (A11)	Depleted Matri	x (F3)			•	
	oark Surface (A12)	- ( )	Redox Dark St	urface (F6)			³ Indicators of hydropi	nytic vegetation and
	Mucky Mineral (S1)		Depleted Dark	Surface (F7	)		wetland hydrology municipal disturbed or p	ust be present,
	Gleyed Matrix (S4)		Redox Depres	sions (F8)			uniess disturbed or p	IODICI II alic
etrictive i	ayer (if present):							
_	eter fu breezurt.				Hydric S	oil Present?	Yes	_ NoX
Type: Depth (inc	ches).						<del></del>	,
marks:	J1100 /.				<u>'</u>		<u> </u>	
DROLO	GY							
Vetland Hyc	Irology Indicators:					Soc	ondary Indicators (2 or	more required)
rimary Indic	ators (minimum of one	e required; ch	neck all that appl	ned Leaves	(B9) (excep		Nater-Stained Leaves	(B9) (MLRA 1, 2,
Surface V	Vater (A1)			ned Leaves 2, 4 <b>A, and 4</b> l			IA, and 4B)	
	er Table (A2)		Salt Crust	(B11)			Drainage Patterns (B1	0)
Saturation			Aquatic Inv	vertebrates (	B13)	2000	Dry-Season Water Tai	ole (C2)
Water Ma			Hydrogen	Sulfide Odor	r (C1)		Saturation Visible on A	enai imagery (C9)
					s along Living	9	Geomorphic Position (	D2)
	Deposits (B2)		Roots (C3	) of Reduced ⁽	Iron (C4)		Shallow Aquitard (D3)	· <b>,</b>
Drift Depo	osits (B3)			n Reduction				
Algal Mat	or Crust (B4)		Soils (C6)				FAC-Neutral Test (D5)	
- Mai Mat	or order (DT)		Stunted or	Stressed Pl	lants (D1)			ses /I DD AS
Iron Depo			(LRR A)		1\		Raised Ant Mounds (I Frost-Heave Hummod	10) (LRK A) ks (D7)
Surface S	Soil Cracks (B6)	<b></b> -	Other (Exp	olain in Rem	arks)		riust-neave nummod	na (DI)
Inundatio	n Visible on Aerial Ima	agery (B7)						
_ Sparsely	Vegetated Concave S	ounace (55)						<u> </u>
ield Obser	vations:		*					bana.
Surface Wat		No _	Depth (inche					Yes No
Water Table		☐ No 🍑	Depth (inche	es):	V	Vetland Hyd	rology Present?	Yes No
Saturation P	resent?		A PLAN CLAR	a).				
(includes cal	pillary fringe) Yes	No 🖸	Depth (inche	hotos previe	nus inspectio	ons), if avails	ible:	
escribe Rec	orded Data (stream ga	auge, monitor	nng wen, aenai p	יוטש, אושטוני	og mapeout	nioj, ii avalie		
			(					
marke.			/					
emarks:			1					
emarks:			/	V	noine	لمحاا	1)- C	

THE TEAM DE LEANING	ATION DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: HAY KANCH  Applicant/Owner: HAY RANCH  Investigator(s): MARA KANCH  Subregion (LRR): MARA ZZB  Soil Map Unit Name: 180 Louise  Are climatic / hydrologic conditions on the site tyl  Are Vegetation , Soil , or Hydrologic Are Vegetation , Soil , or Hydrologic , So	State: CA Same Section, Township, Range: Local relief (concave, converted) Lat:-[20:3956] Long: 4,67  Local for this time of year? Yes X No significantly disturbed? Are gy No naturally problematic?	Sampling Date: 8/23/2016  Sing Point: 66  Style Sect (12+3)  ex, none): Coverage Slope (%): 5  Ext Al Datum: NAN 83  NWI classification: VA  (If no, explain in Remarks.)  "Normal Circumstances" present? Yes X  No  (If needed, explain any answers in Remarks.)  t locations, transects, important features, etc
Remarks: ditch		
VEGETATION - Use scientific names	of plants.	
Tree Stratum (Plot size: ) 1. 2. 3.	Absolute Dominant Indicator % Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
3,		Total Number of Dominant Species Across All Strata: (B)
4.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		**************************************
2.		
3.		
4.		FACW species x 2 =
5		FAC species x3 =
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 1	= Total Cover	UPL species x 5 =
1.		Column Totals: (A) (B)
2.	1 7	
3.	No. of the second secon	Prevalence index = B/A =
4.		Hudronbytic Magazation In Hard
5,	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Hydrophytic Vegetation Indicators:
6.		1 - Rapid Test for Hydrophytic Vegetation
7.	59 St 15702 (a + 1 &	2 - Dominance Test is >50%
8	(1964) 1-10-1	3 - Prevalence Index is ≤3.01
9		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
10		5 - Wetland Non-Vascular Plants ¹
11	** 14 A V - #A	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	· · · · · · · · · · · · · · · · · · ·
Woody Vine Stratum (Plot size:		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u> -</u>	- Property among and and or property lic.
2.	A state of the state of	The State
% Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation
	Lil . Lake	Present? Yes No
Remarks:	THE MENT OF THE PARTY OF THE PA	L BERT . ALOW
MOVED DON NO	ably and indiv	4
	obling Da-abi	Arseveg-riparian

OIL					સંગુણ ગુણ જું ને ગોર્ગ	
OIL Profile Description: (Describe	to the depth needs	d to document	the indicator or c	onfirm the al	sence of indicators.	), ,
Depth Matrix		Rec	DOX FEBILITIES	Loc²	Texture	Remarks
(inches) Color (moist)		r (moist)	%` Type'		- 0	-
0-7 2.54RM	3 100				loun	
(3)		12416			Sand	
7-18 2.54R	11 10 57	heirs r. F. C.	<del></del>			
•						
					<del></del>	
			<del></del>			<u></u>
		7.5				
					2	Links Makhadriy
Type: C=Concentration, D=De	apletion, RM=Reduce	d Matrix, CS=C	overed or Coated S	and Grains.	² Location: PL=Pore	
Hydric Soil Indicators: (App	licable to all LRRs,	unless otherwi	se noted.)		cators for Problemat	tic Hydric Solls":
Histosol (A1)		dy Redox (S5)		-	2 cm Muck (A10)	
Histic Epipedon (A2)	Strit	pped Matrix (S6)	)		Red Parent Material (	TF2)
Black Histic (A3)	Loa	my Mucky Mine	ral (F1) (except ML	.RA 1)	Very Shallow Dark Su	rface (TF12)
Hydrogen Sulfide (A4)	Loa	my Gleyed Matr	rix (F2)		Other (Explain in Rem	iarks)
Depleted Below Dark Surf	ace (A11) Der	oleted Matrix (F3	3)		Sh., _D	dia uggalation and
Thick Dark Surface (A12)	Red	lox Dark Surface	∌ (F6)		³ Indicators of hydroph wetland hydrology mu	ylic vegetation and
Sandy Mucky Mineral (S1)	,	eleted Dark Surfa	ace (F7)		wetland nydrology mu unless disturbed or pr	oblematic
Sandy Gleyed Matrix (S4)	Rec	lox Depressions	(Гб)	<del></del>	arkees distanced or pr	
			ļ		$\checkmark$	
estrictive Layer (if present):			Hydric S	Soll Present?	Yes _	No
Type:					T	
Depth (Inches):						
marks:						
	LXCO	LVOZOLI	d au	TUIL		
YDROLOGY Wetland Hydrology Indicators	•					4 - 43
Primary Indicators (minimum of	, one required; check (	all that apply)			ndary Indicators (2 or	more required)
Timary molecators (minimorries	5110 (104 all 0.5)	Water-Stained	Leaves (B9) (excep	ot V	Vater-Stained Leaves	(B9) (MLRA 1, 2,
		MLRA 1, 2, 4A,	, and 4B)	4	A, and 4B)	
Surface Water (A1)					D-Massa (D4/	2)
Surface Water (A1)	<del></del>	Salt Crust (B11	)	<u> </u>	Prainage Patterns (B10	0) No (C3)
High Water Table (A2)	<u> </u>	Salt Crust (B11 Aquatic Invertel	) brates (B13)	— _г	ry-Season Water Tab	le (C2)
High Water Table (A2)	<del></del>	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic	) brates (B13) de Odor (C1)	<u> </u>	rainage Patterns (B10) Pry-Season Water Tab Saturation Visible on A	le (C2)
High Water Table (A2) Saturation (A3) Water Marks (B1)	=	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfid Oxidized Rhizo	) brates (B13)	<u> </u>	ory-Season Water Tab laturation Visible on A	le (C2) erial Imagery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	=	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfid Oxidized Rhizo Roots (C3)	) brates (B13) de Odor (C1) spheres along Livin		ory-Season Water Tab laturation Visible on A Seomorphic Position (I	le (C2) erial Imagery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1)	=	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Roots (C3) Presence of Re	) brates (B13) de Odor (C1) espheres along Livir		ory-Season Water Tab laturation Visible on A	le (C2) erial Imagery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	=	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re	) brates (B13) de Odor (C1) spheres along Livin		ory-Season Water Tab laturation Visible on A Seomorphic Position (I Shallow Aquitard (D3)	ole (C2) erial Imagery (C9) D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	=	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re Solls (C6)	) brates (B13) de Odor (C1) espheres along Livir educed fron (C4) eduction in Tilled		Ory-Season Water Table aturation Visible on A Seomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5)	ole (C2) erial Imagery (C9) D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	=	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre	) brates (B13) de Odor (C1) espheres along Livir		ory-Season Water Table turation Visible on A Seomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	ole (C2) erial Imagery (C9) D2) D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re Solls (C6) Stunted or Stre (LRR A)	) brates (B13) de Odor (C1) espheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1)		Ory-Season Water Table aturation Visible on A Seomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5)	ole (C2) erial Imagery (C9) D2) D6) (LRR A)
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)		Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre	) brates (B13) de Odor (C1) espheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1)		ory-Season Water Table turation Visible on A Seomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	ole (C2) erial Imagery (C9) D2) D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial	magery (B7)	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re Solls (C6) Stunted or Stre (LRR A)	) brates (B13) de Odor (C1) espheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1)		ory-Season Water Table turation Visible on A Seomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	ole (C2) erial Imagery (C9) D2) D6) (LRR A)
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)	magery (B7)	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re Solls (C6) Stunted or Stre (LRR A)	) brates (B13) de Odor (C1) espheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1)		ory-Season Water Table turation Visible on A Seomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	ole (C2) erial Imagery (C9) D2) D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial	e Surface (B8)	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizor Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain	) brates (B13) de Odor (C1) espheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1)		ory-Season Water Table turation Visible on A Seomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	ole (C2) erial Imagery (C9) D2) D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave	e Surface (B8)	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain	brates (B13) de Odor (C1) spheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1) in Remarks)		Pry-Season Water Table attration Visible on A Geomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D5) Frost-Heave Hummoc	ole (C2) erial Imagery (C9) D2) D6) (LRR A) ks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave	e Surface (B8)	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizor Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain	brates (B13) de Odor (C1) spheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1) in Remarks)		ory-Season Water Table turation Visible on A Seomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	ole (C2) erial Imagery (C9) D2) D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Sparsely Vegetated Concave	e Surface (B8)  es No C	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfic Oxidized Rhizo Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain Depth (inches):	brates (B13) de Odor (C1) spheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1) in Remarks)		Pry-Season Water Table attration Visible on A Geomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D5) Frost-Heave Hummoc	ole (C2) erial Imagery (C9) D2) D6) (LRR A) ks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial I Sparsely Vegetated Concave Field Observations: Surface Water Present? Vegetated Concave Saturation Present? Vegetated Concave Saturation Present?	e Surface (B8)  BS No C  ES No C	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfid Oxidized Rhizor Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain Depth (inches): Depth (inches):	brates (B13) de Odor (C1) spheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1) in Remarks)	wetland Hyd	Pry-Season Water Table attration Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (DF Tost-Heave Hummod Toology Present?	ole (C2) erial Imagery (C9) D2) D6) (LRR A) ks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial I Sparsely Vegetated Concave Field Observations: Surface Water Present? Vegetated Concave Saturation Present? Vegetated Concave Saturation Present?	e Surface (B8)  BS No C  ES No C	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfid Oxidized Rhizor Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain Depth (inches): Depth (inches):	brates (B13) de Odor (C1) spheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1) in Remarks)	wetland Hyd	Pry-Season Water Table attration Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (DF Tost-Heave Hummod Toology Present?	ole (C2) erial Imagery (C9) D2) D6) (LRR A) ks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave	e Surface (B8)  BS No C  ES No C	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfid Oxidized Rhizor Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain Depth (inches): Depth (inches):	brates (B13) de Odor (C1) spheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1) in Remarks)	wetland Hyd	Pry-Season Water Table attration Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (DF Tost-Heave Hummod Toology Present?	ole (C2) erial Imagery (C9) D2) D6) (LRR A) ks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present? Water Table Present? Water Table Present? (Includes capillary fringe) Vegescribe Recorded Data (stream	e Surface (B8)  BS No C  ES No C	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfid Oxidized Rhizor Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain Depth (inches): Depth (inches):	brates (B13) de Odor (C1) spheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1) in Remarks)	wetland Hyd	Pry-Season Water Table attration Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (DF Tost-Heave Hummod Toology Present?	ole (C2) erial Imagery (C9) D2) D6) (LRR A) ks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concave Selface Water Present? Vater Table Present? Vater Table Present? Saturation Present? Includes capillary fringe) Secribe Recorded Data (stream	e Surface (B8)  BS No C  ES No C	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfid Oxidized Rhizor Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain Depth (inches): Depth (inches):	brates (B13) de Odor (C1) spheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1) in Remarks)	wetland Hyd	Pry-Season Water Table attration Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (DF Tost-Heave Hummod Toology Present?	ole (C2) erial Imagery (C9) D2) D6) (LRR A) ks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial I Sparsely Vegetated Concave  Field Observations: Surface Water Present? Vater Table Present? Vater Table Present? Vater Table Present? Vindurles capillary fringe)	e Surface (B8)  BS No C  ES No C	Salt Crust (B11 Aquatic Invertel Hydrogen Sulfid Oxidized Rhizor Roots (C3) Presence of Re Recent Iron Re Soils (C6) Stunted or Stre (LRR A) Other (Explain Depth (inches): Depth (inches):	brates (B13) de Odor (C1) spheres along Livir educed fron (C4) eduction in Tilled essed Plants (D1) in Remarks)	wetland Hyd	Pry-Season Water Table attration Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (DF Tost-Heave Hummod Toology Present?	ole (C2) erial Imagery (C9) D2) D6) (LRR A) ks (D7)

. •	Trestering	nountains, valleys, and Coast Region
Project/Site: HAV+ Kanch	city/county: Siski you Co	8/22/2011
Applicant/Owner: Prairt Kanch	State: C.A. Commi	in Dates
Investigator(s): Andrea Rabe	Section Township Bosses	ling Point: (0 C
Landform (hillslope, terrace, etc.): hillslope	Section, Township, Range:	45N, R5W Sect 1,2+3
Subregion (LRR): MLRA 22.8	Lucal reflet (concave, conve	x, none): Slope (%): S
Soil Map Unit Name: 180 (DUIX	2 COam	
	fool for this time of a second	NWI classification:
Are Vegetation	No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrolog	By 190 significantly disturbed? Are	"Normal Circumstances" present? Yes X No
, or Hydrolog	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site	e man showing compline noise	locations, transects, important features, etc
	No V	riocations, transects, important features, etc
Hydric Soil Present? Yes	No Is the Sampled Area wi	ithin a Wetland? Yes No
Wetland Hydrology Present? Yes	No 🛬	
Remarks:		
la ol a a A	1.1 4.1 12.1.	
w plana	ditchbank	
VEGETATION LIPS polarities		
VEGETATION - Use scientific names of	of plants.	
Tree Stratum. (Plot size: )	Absolute Dominant Indicator	Dominance Test worksheet:
,	% Cover Species? Status	Number of Dominant Species
2		That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
4		Species Across All Strata: (B)
*		Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)
		(A/B)
Carlles (Charle Ottobare 1911)	= Total Cover	_
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
2.		OBL species x 1 =
3.		FACW species x 2 =
4.		FAC species x3 =
o		FACU species 30 x4= 170
un our or in the Beautiful	= Total Cover	UPL species 70 x5= 100
Herb Stratum (Plot size:	30	
· Festuca idahoensis	DU Y HACH	Column Totals: 5D (A) 220 (B)
Bromus tectorin	20 4 484	Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
·	* 10 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1	1 - Rapid Test for Hydrophytic Vegetation
<u> </u>	14 4 2 Miles	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations ¹ (Provide supporting
		data in Remarks or on a separate sheet)
0		5 - Wetland Non-Vascular Plants ¹
1		Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	Indicators of hydric soil and wetland hydrology must
/oody Vine Stratum (Plot Nze:)		be present, unless disturbed or problematic.
	to the same	The state of the s
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum		Vegetation Present? Yes No
	1	165
emarks;		
		1
		1

SOIL	earasilina Pellali 60
Profile Description: (Describe to the	depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix	Redox Features
(inches) Color (moist) %	Color (moist) 76 Type Loo Total Color (moist)
0-10 2.5426/2 10	s
10-18 7,5 4R4 3 10	20
1T. To Co-Compositation De Donistian	RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
	3
Hydric Soil Indicators: (Applicable to	
Histosol (A1)	Sandy Redox (S5) 2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2)  Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11	Depleted Matrix (F3)
Thick Dark Surface (A12)	Redox Dark Surface (F6)  Sindicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic
Restrictive Layer (if present):	Hydric Soil Present? Yes No
Type:	Hydric Soil Present? Yes No
Depth (inches):	
Remarks:	
	noindi cutor
HYDROLOGY	
HYDROLOGY Wetland Hydrology Indicators:	
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply)  Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply)  Water-Stained Leaves (B9) (except  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi Surface Water (A1)	red; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)  Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  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)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled  Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled  Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled  Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled  Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes  Describe Recorded Data (stream gauge, n	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Solls (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Depth (inches):  Depth (in
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes  Describe Recorded Data (stream gauge, n	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled  Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No

	Tim - Western Mountains, Valleys, and Coast Region
Project/Site: HAY RANCH City/County:	Sieking la Stanton
Applicant/Owner: Hart Ranch Stanch Stanch Stanch Stanch Stanch Stanch Stanch Stanch Section, Town Landform (hillslope, terrace, etc.): 1151006 Local n	213 N VOIL CO. Sampling Date: 0/23/2010
Investigator(s):	ite: (A Sampling Point:
Landform (hillstone terrace etc.): 1041 Clane	ship, Range: 1.45N, R5W Sect 1,2+3
Subregion (LRR): MLCA 220	ellef (concave, convex, none): Convex Slope (%): 5
Subregion (LRR): MLRA 228 Lat: 120 363	137Long: 41,6787692 Datum: NAD 83
of the office of the site typical for this time of	/Par2 Vos V No.
	ly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology 10 naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site man showing	
Hydrophytic Vegetation Present? Yes No X	sampling point locations, transects, important features, et
Hydric Soil Process?	he Sampled Area within a Wetland? Yes No
Tes	res NO/
Remarks:	
~ 3	
CAST CAST	h mnk
VECETATION III- I III	
VEGETATION - Use scientific names of plants.	
Absolute Do	minant Indicator Dominance Test worksheet:
Tree Stratum (Plot size: ) % Course S-	
	That Are OBL, FACW, or FAC: (A)
1	Total Number of Dominant
	Species Across All Strata; (B)
4.	Percent of Dominant Species
	That Are OBL, FACW, or FAC: (A/B)
= To	otal Cover
Sapling/Shrub Stratum (Plot size:)	Prevalence Index worksheet:
1.	Total % Cover of: Multiply by:
2. 3. 4.	OBL species x1=
3.	
5	FAC species x3=
5	FAC species x3=
= Tol	na Course X 4 =
terb Stratum (Plot size: ( m2)	UPL species $\frac{70}{x5} = \frac{350}{x5}$
" (entauna Ealshtialia 30 4	Column Totals: 10 (A) 350 (B)
- Pseudomantia Solcata 40 0	Prevalence index = B/A =
	TISTAISTISE THORX - B/A -
,	Hydrophytic Vegetation Indicators:
· · · · · · · · · · · · · · · · · · ·	4.9
is the second	1 - Rapid Test for Hydrophytic Vegetation
	2 Dominative Fest is >50%
	3 - Prevalence Index is ≤3.0¹
	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
0.	5 - Wetland Non-Vascular Plants ¹
1.	Problematic Hydrophytic Vegetation¹ (Explain)
70 = Tota	
/oody Vine Stratom (Plot size: )	indicators of Hadito 2011 Sub Metiant Individual Milet
	be present, unless disturbed or problematic.
	The same of the sa
Total	Listrophytic
Bare Ground in Herb Stratum = Total	Vegetation
	Present? Yes No
emarks:	
miding.	
	• [

301L		4	Sarajaling Palat
Profile Description: (Describe to the	depth needed to document the indic Redox Featu	cator or confirm ពេ res	e absence of indicators.)
Depth Matrix (inches) Color (moist) %		Type Loc	Texture Remarks
(Interior)		.75-	loam
0-9 2.5426/4 10	<u> </u>		
9,18 2.5 426/3 100			loan
7-7-8		<del></del>	·
	_		
¹ Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered or	Coated Sand Grain	ns. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable 1			Indicators for Problematic Hydric Soils ³ :
	and the second s	••	2 cm Muck (A10)
Histosol (A1)	Sandy Redox (S5) Stripped Matrix (S6)	-	Red Parent Material (TF2)
Histic Epipedon (A2)	Loamy Mucky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Surface (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
Depleted Below Dark Surface (A11		_	
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology must be present, unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		Unless disturbed or problemado
			\
Restrictive Layer (if present):		Hydric Soil Prese	ent? Yes No
Type:		Byuric Son Frese	
Depth (inches):			
	mounde	1.7.	
かりし しじん			
Wetland Hydrology Indicators:	ired; check all that apply)		secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	ired; check all that apply) Water-Stained Leaves (B		Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ	ired; check all that apply)  Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B)	39) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ Surface Water (A1)	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	39) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aguatic Invertebrates (B'	39) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ  Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B'  Hydrogen Sulfide Odor (I	13) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (G' Oxidized Rhizospheres a	13) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (COXIDE AND ADDRESS AND AD	13) (except 13) C1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (G' Oxidized Rhizospheres a	13) (except  13) C1) Salong Living Cn (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriction Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Soils (C6)	13) C1) along Living on (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (i Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Soils (C6) Stunted or Stressed Plan	13) C1) along Living on (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Soils (C6) Stunted or Stressed Plan (LRR A)	13) C1) along Living on (C4) Tilled nts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remar	13) C1) along Living on (C4) Tilled nts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriction Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark	13) C1) along Living on (C4) Tilled nts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark	13) C1) along Living on (C4) Tilled nts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriction Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark	13) C1) along Living on (C4) Tilled nts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestions) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations:	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irc Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark (B7)	13) C1) along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requested Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present?  Yes	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark	13) C1) along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requested Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present?  Yes	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark (B7) (B7) (B8)  Depth (Inches):	13) C1) along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Ves Saturation Present? (Includes capillary fringe) Yes	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irc Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark (B7) (B8)  Depth (Inches):  No Depth (inches):	13) C1) along Living on (C4) n Tilled onts (D1) ks)  Wetland I	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriction of the property of the propert	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irc Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark (B7) (B8)  Depth (Inches):  No Depth (inches):	13) C1) along Living on (C4) n Tilled onts (D1) ks)  Wetland I	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriction of the property of the propert	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irc Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark (B7) (B8)  Depth (Inches):  No Depth (inches):	13) C1) along Living on (C4) n Tilled onts (D1) ks)  Wetland I	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriance Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irc Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark (B7) (B8)  Depth (Inches):  No Depth (inches):	13) C1) along Living on (C4) n Tilled onts (D1) ks)  Wetland I	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriction of the property of the propert	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irc Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark (B7) (B8)  Depth (Inches):  No Depth (inches):	13) C1) along Living on (C4) n Tilled onts (D1) ks)  Wetland I	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriction of the r	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irc Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark (B7) (B8)  Depth (Inches):  No Depth (inches):	13) C1) along Living on (C4) n Tilled onts (D1) ks)  Wetland I	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requestriction of the r	Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irc Recent Iron Reduction in Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark (B7) (B8)  Depth (Inches):  No Depth (inches):	(39) (except (13) (C1) (along Living (C4) (Tilled (nts (D1) (ks)  Wetland I	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

### WETLAND DETERMINATION DATA FORM - Western Mountain

	TON DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: Hart Kanch	S'-K'.	0
Applicant/Owner: Hard Paracle	City/County: 318 11000	20. Sampling Date: 0/23/2010
Applicant/Owner: Hart Ranch Investigator(s): Andrea Rance Landform (hillslope, terrace, etc.): hillslope	State: (A' San	pling Point: 16
Landform (hillslope terrace etc.):  aillelen	Section, Township, Range:	. 45N, K5W Sect 1,2+3
Landform (hillslope, terrace, etc.): hillslope	Local relief (concave, con	vex, none): Contrave Slope (%):
Soil Map Unit Name: 180 Court	LOUM	NWI classification:
Are climatic / hydrologic conditions on the site typi	cal for this time of year? Yes	lo (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrolog	significantly disturbed? Ar	e "Normal Circumstances" present? Yes X No
		The state of the s
SUMMARY OF FINDINGS - Attach site	map showing sampling noi	nt locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes		
Hydric Soil Present?  Wetland Hydrology Present?  Yes Yes	is the Sampled Area	within a Wetland? Yes No
Remarks:	vo	
ditch		
VECETATION Has sales 12		
VEGETATION - Use scientific names of	f plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicate	
	% Cover Species? Status	
2.		That Are OBL, FACW, or FAC: (A)
1. 2. 3.		Total Number of Dominant
4.		Species Across Ali Strata: (B) Percent of Dominant Species
		That Are OBL, FACW, or FAC:(A/B)
	Total Comme	(70)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Prevalence Index worksheet:
1		1
2.		Total % Cover of: Multiply by:
3.		OBL species x1 =
4.		FACW species x2=
5		FAC species x 3 = x 3 =
	= Total Cover	FACU species x 4 =
lerb Stratum (Plat size: [m2)		UPL species x 5 =
		Column Totals: (A) (B)
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Prevalence Index = B/A =
		Totalelice fildex = B/A =
		Hydrophytic Vegetation Indicators:
	ু ভূমি বা প্রভাগ বিভাগ ভূমি বা প্রভাগ ভূমি বা প্র	1 - Rapid Test for Hydrophytic Vegetation
· A	Section of the sectio	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
376	2*************************************	4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
)		5 - Wetland Non-Vascular Plants ¹
	20.40	Problematic Hydrophytic Vegetation¹ (Explain)
cody) (In Chatter	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
cody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
-		\$1 / <b>图</b> 4图为
	A STATE OF SECOND	
Bare Ground in Herb Stratum	= Total Cover	Vegetation
Stoute in Holy Sugariff	satte a	Present? Yes No
marks:	Low 1	
A MANAGER	enante abrupe	000
YAT FEET GAD VES	CLAN CUDINFE	@ sparse vell riparter
1	Creation	(4) spar risarra
Army Corps of Engineers		

Western Mountaine Vellow and Ones Mountains

US Army Corps of Engineers

SOIL	Sa apulina Pulini Tu	
	depth needed to document the indicator or confirm the absence of indicators.)  Redox Features	
Depth Matrix (inches) Color (moist) %	Color (moist) % Type Loc² Texture Rema	rks
U-10 26426/3		
6-18 2,54261, 80	542416 20 Pc Fand	
<u> </u>		
¹ Type: C=Concentration, D=Depletion, I	RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=	Matrix.
Hydric Soil Indicators: (Applicable to		oils³:
	Sandy Redox (S5) 2 cm Muck (A10)	
Histosof (A1) Histic Epipedon (A2)	Stripped Matrix (S6) Red Parent Material (TF2)	
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12 Other (Explain in Remarks)	)
Hydrogen Sulfide (A4)	Louisty Clayer Market (1.2)	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Paday Dark Surface (F6) "Indicators of hydrophytic vegetati	on and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present	nt,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic	
Restrictive Layer (if present):	Hydric Soil Present? Yes No	
Type:		
Depth (inches):		···
Remarks:		
0-	or at soil in Oct. No ditch with	Her
	OR AT WILL ON CAT, MIN CHARLES	2 4 4 4
HYDROLOGY		
Wetland Hydrology Indicators:	O de Indicators /2 or more requir	ed)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply)  Secondary Indicators (2 or more requir	ed) 1, 2,
Primary Indicators (minimum of one requi	Water-Stained Leaves (B9) (except  MIRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA  4A, and 4B)	ed) 1, 2,
Primary Indicators (minimum of one requi	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Water-Stained Leaves (B9) (MLRA 4A, and 4B)  Drainage Patterns (B10)	ed) 1, 2,
Primary Indicators (minimum of one requi	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Water-Stained Leaves (B9) (MLRA 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)	.1, 2,
Primary Indicators (minimum of one requi	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Water-Stained Leaves (B9) (MLRA 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imager	.1, 2,
Primary Indicators (minimum of one requi	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Water-Stained Leaves (B9) (MLRA 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imager	.1, 2,
Primary Indicators (minimum of one requi	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Water-Stained Leaves (B9) (MLRA 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imager  Geomorphic Position (D2)  Shallow Aquitard (D3)	.1, 2,
Primary Indicators (minimum of one requi	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled  Water-Stained Leaves (B9) (MLRA 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imager  Geomorphic Position (D2)  Shallow Aquitard (D3)	.1, 2,
Primary Indicators (minimum of one requi	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Sturted or Stressed Plants (D1)  Water-Stained Leaves (B9) (MLRA 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imager  Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	.1, 2,
Primary Indicators (minimum of one requirement Primary Indicators (minimum of one requirement Primary Indicators (Ma)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Staturation Visible on Aerial Imager  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)	.1, 2,
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Primary Indicators (minimum of one requirement Primary Indicators (minimum of one requirement Primary Indicators (Ma)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface  Field Observations:  Surface Water Present?  Water Table Present?  Saturation Present?  (includes capillary fringe)  Describe Recorded Data (stream gauge, ma)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches):  No Depth (inches):  Water-Stained Leaves (B9) (MLRA 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imager Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  Wetland Hydrology Present? Yes	y (C9)
Primary Indicators (minimum of one requirement of one requirement)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Yes	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches):  No Depth (inches):  Water-Stained Leaves (B9) (MLRA 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imager Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  Wetland Hydrology Present? Yes	y (C9)
Primary Indicators (minimum of one requirement of the requirement of t	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  No Depth (inches):  No Depth (inches):  Water-Stained Leaves (B9) (MLRA 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imager Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes  Wetland Hydrology Present? Yes	y (C9)

Project/Site: HAT RANCH Site: City/County: Sisk VOL D. Sampling Date: \$23/2010/ Applicant/Owner: HAT RANCH Site: CA Sampling Point: CANCARD RANCH RANCH Site: CA Sampling Point: CANCARD RANCH Site: CANCARD RANCH RA	Project/Site: Hart Kanch City/County: Siskiyou	n Mountains, Valleys, and Coast Region
Sampling Point   Samp	Applicant/Owner: HA ct Pack 15	0- 01-1
Landform (Pilologe, Israec, etc.): INISIONE Local Pielef (concave, convex, noe): COACASIA Stope (%): 5 Subregion (LRR): MLRA ZR Lat 23, 33,362 Long: (LLR): RS Debuttin: NAS A Subregion (LRR): MLRA ZR Lat 23, 33,362 Long: (LLR): RS Debuttin: NAS A Are Valential of Nytrologic conditions on the site typical for this time of year? Yes X Are Vagetation , Soil or Hydrology Department of Normal Circumstances' present? Yes X Are Vagetation , Soil or Hydrology Department of Normal Circumstances' present? Yes X Are Vagetation , Soil or Hydrology Department of Normal Circumstances' present? Yes X Are Vagetation , Soil or Hydrology Department of Normal Circumstances' present? Yes X Hydrologivide Vagetation Present? Yes No X  SUMMARY OF FINDINGS - Attach site map showling sampling point locations, transects, important features, e Hydrologivide Vagetation Present? Yes No X  No X  VEGETATION - Use scientific names of plants.  Tree Stratum (Plot size: Yes No X  Absolute Dominant indicator Species Are Summer of Dominant Species Area Stratum (Plot size: Yes No X  Prevalence Index worksheet: Total Average of Dominant Species Area Average Species Area Species Area Average Species Area Average Species Area Species Area Average Species Area Average Species Area Species Area Species Area Average Species Area		
Sold Map Unit Name: ISO   Dure Lond / Name: Iso   Dure	Investigator(s): Section Township Page 1	mpling Point:
Sold Map Unit Name: ISO   Dure Lond / Name: Iso   Dure	Landform (hillslope, terrace, etc.): Ni) Slope	1.75N, K5W Sect 1,2+3
Are Vegetation of the site typical for this time of year? Yes No (If no, explain in Remarks.)  No (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, e hydrophytic Vegetation Present?  Yes No Yes N	Subregion (LRR): MLRA 22R LaTIO 3828/21 (concave, con	nvex, none): Con Cause Slope (%): 5
As climate / hydrologic conditions on the site bytical for this time of year? Yes No (If no. explain in Remarks.)  No (If no. explai	Soil Map Unit Name: 180 (DUI PL) A M	678696 Datum: NAN K3
Are Vegetation , Soil or hydrology ND naturally desurabed? Are Normal Circumstances' present? Yes No (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transacts, important features, e hydrophytic Vegetation Present? Yes No Yes N	Are climatic / hydrologic conditions on the site typical for this time of	NYVI classification:
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, e hydrophytic Vegetation Present?  Yes No Yes		
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, e hydrophytic Vegetation Present?  Yes No Yes	Are Vegetation , Soil , or Hydrology NO paturally problematics	No
Is the Sampled Area within a Wetland?   Yes   No   Wesland Hydrology Present?   Yes   No   Wesland Hydrology must be present, unless distrate.   Yes   No   Wesland Hydrology must be present, unless distrate.   Yes   No   Wesland Hydrology must be present?   Yes   Ye		
Is the Sampled Area within a Wetland?   Yes   No   Wetland Hydrology Present?   Yes   No   Wetland Hydrology must be present. Unlarge Hydrophytic Vegetation   Present?   Yes   No   Wetland Hydrology must be present?   Yes	SUMMARY OF FINDINGS - Attach site map showing sampling no	int locations transacts immediate
Wedland Hydrology Present?   Yes   No   No   No   No   No   No   No   N		
Remarks:  //EGETATION - Use scientific names of plants.  ree Stratum (Plot lage:	Wetland Hydrology Present?	within a Wetland? Yes No
### Absolute Species?    Absolute Species?   Dominant Indicator Species?   Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Percent of Dominant Species Are Species Across Alstrate:   Ambino/Shrub Stratum (Plot size:   Prevalence Index worksheet: Total Species Are Species Across Are FACW species   Ambino/Shrub Stratum (Plot size:   Prevalence Index worksheet: Total Species   Ambino/Shrub Stratum (Plot size:   Prevalence Index worksheet: Total Species   Ambino/Shrub Stratum (Plot size:   Ambino/Shrub Stratum (Plot size:   Ambino/Shrub Stratum (Plot size:   Ambino/Shrub Stratum (Plot size:   Ambino/Shrub Stratum   Ambino/Shrub Shrub S	100	
Absolute % Cover Status    Provided Status	ternarks.	
Absolute % Cover Status    Plot Size:   Absolute % Cover   Dominant Species   Dominant Sp		
Absolute % Cover Species? Status   Dominant Species   Dominant Species		
Absolute % Cover Species?  Absolute % Cover Species?  Absolute % Cover Status  Prevalence Total Species Across All Stratus  Formula Fo	/EGETATION - Use scientific names of plants	
Mumber of Dominant Species   Mumber of Dominant Species   That Are OBL, FACW, or FAC:   That Are OBL, FACW, or FAC:   That Are OBL, FACW, or FAC:   Total Name of Dominant Species Across All Strata:   Percent of Dominant Species Across All Strata:   Percent of Dominant Species   AMB		
Amage of Dominant Species   Company   Compan	ree Stratum (Plot size:	
Total Number of Dominant Species Across All Stratus:    Percent of Dominant Species That Are OBL, FACW, or FAC:	76 Cover Species? Statu	- 1 'YOUNDO' OF DOMINION SUBCIES
Total Number of Dominant Species Across All Strate:   Percent of Dominant Species Across All Strate:   Prevalence Index worksheet:   Total % Cover of:   Multiply by:   OBL species   x1 =   FACW species   x2 =   FACW species   x3 =   FACW species   x3 =   FACW species   x4 =   UPL species   x4 =   UPL species   x5 =   YOU   Column Totals:   YOU   Prevalence Index = B/A =   Hydrophytic Vegetation Indicators:   1 - Rapid Test for Hydrophytic Vegetation   2 - Dominance Test is >50%   3 - Prevalence Index is <3.0¹   4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)   5 - Wetland Non-Vascular Plants'   Problematic Hydrophytic Vegetation (Explain)   **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.   Hydrophytic Vegetation   Yes   No   No   Yes   No   No   Yes   No   No   No   No   No   No   No   N		
Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)  Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species X2 = FACW species X3 = FACW species X4 = UPL species X5 = UPL species X5 = UPL species X6 = UPL species X6 = UPL species X7 = UPL species X6 = UPL species X6 = UPL species X6 = UPL species X7 = UPL species X8 = UPL species X9 =		
That Are OBL, FACW, or FAC: (A/B)    Prevalence Index worksheet:   Total % Cover of: Multiply by:   OBL species   x1 =   FACW species   x2 =   FACW species   x3 =   FACW species   x4 =   UPL species   x5 =   UPL species   x5 =   UPL species   x5 =   UPL species   x5 =   UPL species   x6 =   UPL species		
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FAC species x3 = FACU species x4 = UPL species x4 = UPL species x5 = VOO Column Totals: (A) VOO Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is <3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  day Vine Stratum  Plot size:  1 - Rapid Test for Hydrophytic Vegetation in dicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is <3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  The dicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation Present? Yes No		That Are OBL FACIN or FAC:
Prevalence Index worksheet:  Total % Cover of: Multiply by:  OBL species		(A/B)
Total % Cover of: Multiply by:  OBL species	anling/Shrub Stratum (Diet electrical) = Total Cover	
OBL species		Prevalence Index worksheet:
OBL species x1 = FACW species x2 = FAC species x3 = FACU species x4 = UPL species SD x5 = UPL species x4 = UPL species x2 = UPL species x3 = UPL species x3 = UPL species x2 = UPL species x2 = UPL species x3 = UPL species x3 = UPL species x3 = UPL species x3 = UPL species x4 = UPL species x3 = UPL species x4 = UPL spe		Total % Cover of: Multiply by:
FAC species x3 = FACU species x4 = UPL species SD x5 = UDD Column Totals: SD (A) GDD (B) Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supporting data in Remarks or or a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  day Vine Stratum (Plot size: )  Total Cover  Hydrophytic Vegetation  Total Cover  Hydrophytic Vegetation Present? Yes No		
FAC species x3 = FACU species x4 = UPL species SD x5 = UDD Column Totals: SD (A) GDD (B) Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  Tindicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation  Tindicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation Present? Yes No		FACW species x2 =
FACU species x4 = UPL species 80 x5 = VDD Column Totals: 80 (A) 400 (B)  Prevalence Index = B/A = Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)  5 - Wetland Non-Vascular Plants¹  Problematic Hydrophytic Vegetation¹ (Explain)  **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation  **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  **Hydrophytic Vegetation Present? Yes No X	<u> </u>	
UPL species SO x 5 = VDO Column Totals: SD (A) 400 (B)  Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%  3 - Prevalence index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)  5 - Wetland Non-Vascular Plants¹  Problematic Hydrophytic Vegetation¹ (Explain)  indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation  Present? Yes No		
Column Totals: 8D (A) 400 (B)  Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is <3.0¹  4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Thydrophytic Vegetation  Fresent? Yes No	= Total Cover	
Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 · Rapid Test for Hydrophytic Vegetation  2 · Dominance Test is >50%  3 · Prevalence Index is ≤3.0¹  4 · Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)  5 · Wetland Non-Vascular Plants¹  Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation  Fresent? Yes No		
Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  1 Hydrophytic Vegetation Present? Yes No	BOMOS JECHUNIA 10 4 UPL	Column Totals: 80 (A) 900 (B)
Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  1 Hydrophytic Vegetation Present? Yes No	BELLADIESTURA SOICHA GO Y UPL	Prevalence Index = R/A =
1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ — Problematic Hydrophytic Vegetation¹ (Explain)  dy Vine Stratum (Plot size: )  = Total Cover   Hydrophytic vegetation   1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic vegetation   2 Provide supporting data in Remarks or on a separate sheet)  - Total Cover   Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ — Problematic Hydrophytic Vegetation¹ (Explain)  indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation Present? Yes No		Hydrophytic Vegetation Indicators:
2 - Dominance Test is >50% 3 - Prevalence index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  ¹todicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation Present? Yes No	A STATE OF THE STA	- 1 th 1
3 - Prevalence index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.    Problematic Hydrophytic Vegetation or problematic.	Serve 200 Maria	
4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)  5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation  Fresent? Yes No		
data In Remarks or on a separate sheet)  5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation  From the supporting data in Remarks or on a separate sheet)  5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation Present? Yes No	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 1 Levaleuce littlex is 73'0.
5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)  indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation Present? Yes No		data in Remarks or on a separate shoot
Problematic Hydrophytic Vegetation¹ (Explain)  indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Hydrophytic Vegetation  Fresent?  Fresent?  Problematic Hydrophytic Vegetation¹ (Explain)  Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		5 - Wetland Non-Vesculer Plants1
## Total Cover   Total Cover   Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.   Hydrophytic Vegetation   Present?   Yes   No   No   No   No   No   No   No   N	** u.u.	
be present, unless disturbed or problematic.  # Hydrophytic Vegetation Present? Yes No X	SD - Total Course	
re Ground in Herb Stratum  = Total Cover  Hydrophytic Vegetation Present? Yes No	dy Vine Stratum (Plot size:	Indicators of hydric soil and wetland hydrology must
re Ground in Herb Stratum  Total Cover  #ydrophytic Vegetation Present? Yes No		be present, unless disturbed or problematic.
re Ground in Herb Stratum = Total Cover   Hydrophytic Vegetation   Present?   Yes   No   X		W. State
Vegetation Present? Yes No		Hydrophytic
Present? Yes No _X		1 2
arks:	= Total Cover	
	= Total Cover	
	re Ground in Herb Stratum = Total Cover	
	are Ground in Herb Stratum = Total Cover	

OIL		D	Samplify Politi	
Profile Description: (Describe to the d	lepth needed to document the inc Redox Feat	dicator or confir	m the absence of indicators.	
Depth Matrix (inches) Color (moist) %	Color (moist) %	Type'	Loc ² Texture	Remarks
(11.01.10.1)			Doam	
	<i>o</i>			
7-18 254R6/3 10	D			
1-13 (3/13/1-17)			-	
<u></u>				
				_
		O to d Const	Grains. ² Location: PL=Pore Lini	ing M=Matrix.
¹ Type: C=Concentration, D=Depletion, I	RM=Reduced Matrix, CS=Covered of	or Coated Sand		
Hydric Soil Indicators: (Applicable to	all LRRs, unless otherwise note	ed.)	Indicators for Problematic H	lydric Solls*:
<u></u>	Sandy Redox (S5)		2 cm Muck (A10)	
Histosol (A1)	Stripped Matrix (S6)		Red Parent Material (TF2)	
Histic Epipedon (A2) Black Histic (A3)	Loamy Mucky Mineral (F1)	(except MLRA 1	) Very Shallow Dark Surfac	e (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	-	Other (Explain in Remarks	5)
Depleted Below Dark Surface (A11)	) Depleted Matrix (F3)			
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophytic	vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	)	wetland hydrology must be	e present, matic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or proble	mauc
Restrictive Layer (if present):			recent? Yes N	. X
Type:		Hydric Soil P	resent? Yes N	0
Depth (inches):				
emarks:				
YDROLOGY				
Wetland Hydrology Indicators:				Jrod\
Primary Indicators (minimum of one requi	red; check all that apply)		Secondary Indicators (2 or mor Water-Stained Leaves (B9)	(MLDA 1 2
Thirty transfer (	Water-Stained Leaves	(B9) (except		(MILION ), 2,
Surface Water (A1)	MLRA 1, 2, 4A, and 45	3)	4A, and 4B) Drainage Patterns (B10)	
High Water Table (A2)	Sait Crust (B11)	740	Dry-Season Water Table (C	22)
Saturation (A3)	Aquatic Invertebrates (	B13)	Saturation Visible on Aerial	Imagery (C9)
Water Marks (B1)	Hydrogen Sulfide Odor	r (C1) - slepe Living	Saturation visible on vent	, , , , , , , , , , , , , , , , , , ,
	Oxidized Rhizospheres	s along Living	Geomorphic Position (D2)	
Sediment Deposits (B2)	Roots (C3) Presence of Reduced	Iron (C4)	Shallow Aquitard (D3)	
Drift Deposits (B3)	Recent Iron Reduction	in Tilled		
	Soils (C6)	III I IIIIOO	FAC-Neutral Test (D5)	
_ Algal Mat or Crust (B4)	Stunted or Stressed Pl	lants (D1)		
Inna Danasita (DE)	(LRR A)	12(10) (= 1)	Raised Ant Mounds (D6) (I	LRR A)
Iron Deposits (B5)	Other (Explain in Rem	arks)	Frost-Heave Hummocks (I	07)
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (				
Sparsely Vegetated Concave Surface	(B8)			
	<u> </u>			<u></u>
201121				•
Field Observations:		1		
Field Observations: Surface Water Present? Yes	No L Depth (inches):			MAN
Surface Water Present? Yes	No Depth (inches):	Wetla	and Hydrology Present? Yes	N9^
Surface Water Present? Yes	No Depth (inches):	Wetla	and Hydrology Present? Yes	N91
Surface Water Present? Water Table Present? Saturation Present? Godules capillary fringe) Yes	No Depth (inches):  No Depth (inches):			N9\
Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes	No Depth (inches):  No Depth (inches):			N91
Surface Water Present? Yes Water Table Present? Yes Saturation Present?	No Depth (inches):  No Depth (inches):			N9\
Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes	No Depth (inches):  No Depth (inches):			N9X
Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes escribe Recorded Data (stream gauge, r	No Depth (inches):  No Depth (inches):  nonitoring well, aerial photos, previo	ous inspections),		N9\
Surface Water Present? Yes	No Depth (inches):  No Depth (inches):	ous inspections),		N9\

. 0		nountains, valleys, and Coast Region
Project/Site: Hart Kanch	City/County Siski Vou Pr	8/22/2010
Applicant/Owner: France & Augusta	Ct-to-	
Investigator(s): Andrea Rabe:	Section Township Pages	GCN CU Section
Langioitii (iiliisiode, terrace, erc.): V X M S W X #	Local relief /connected and the	
Subregion (LRR): MLRA 228	Lat: 120 39000 Long UI (	x, none): Corrugh Slope (%): 3
Soil Map Unit Name: 180 (DI)	Lie Loan	
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes V	
Are Vegetation, Soil or Hydrolo	DOY NO significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrolo	gy NO naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	te map showing sampling poin	t locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	NO _X	
Wetland Hydrology Present? Yes	No Is the Sampled Area w	ithin a Wetland? Yes NoX
Remarks:	7	
Lymnia long		
	Vitch bank	
VEGETATION - Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
1		Total Number of Dominant
3.		Species Across Ali Strata:(B)
4.		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		_Total % Cover of: Multiply by:
2.		OBL species x 1 =
3.		FACW species x 2 =
		FAC species x 3 =
5		FACU species x 4 =
Herb Stratum (Plot size: / W)	= Total Cover	UPL species M x5 = 300
	a lab us sent	Column Totals: 100 (A) 300 (B)
1. Keva pregnena spicos	LOU Y OPC	
3.		Prevalence Index = B/A =
4.	· · · · · · · · · · · · · · · · · · ·	
5.	A #2 to 1 to 1 to 1 to 1	Hydrophytic Vegetation Indicators:
0		1 - Rapid Test for Hydrophytic Vegetation
	12 12 17 15 1 L	2 - Dominance Test is >50%
	- SK , F   1	4 3 - Prevalence index is ≤3.01
9.		4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
10.		5 - Wetland Non-Vascular Plants ¹
11.	100000000000000000000000000000000000000	Problematic Hydrophytic Vegetation¹ (Explain)
	(DU = Total Cover	*
Woody Vine Stratum (Plat size:	- rotal cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic,
1.	<u> </u>	
2.	Committee of the commit	(Shirt)
1	= Total Cover	Hydrophytic
% Bare Ground in Herb Stratum		Vegetation Present? Yes No
	<b>1</b>	189 40 V
Remarks:		
		ì

SOIL	Salaplingi Sol
Profile Description: (Describe to the depth need	ed to document the indicator or confirm the absence of indicators.)
Depth Matrix (inches) Color (moist) % Color	Redox Features or (moist) % Type¹ Loc² Texture Remarks
D-10 as yella 100	Onam
	Dogga
10-18 D.548613 100	
	*
¹ Type: C=Concentration, D=Depletion, RM=Reduce	d Matrix. CS=Covered or Coated Sand Grains.    2Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs,	
	dy Redox (S5) 2 cm Muck (A10) Red Matrix (S6) Red Parent Material (TF2)
Histic Epipedon (A2)  Black Histic (A3)  Strig Loai	oped Matrix (S6) my Mucky Mineral (F1) (except MLRA 1)  Wery Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4) Loai	my Gleyed Matrix (F2) Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Dep	leted Matrix (F3)
<u> </u>	ox Dark Surface (F6)  string indicators of hydrophytic vegetation and wetland hydrology must be present,
	ox Depressions (F8) unless disturbed or problematic
Carley Cicyco maun (C 1)	
Restrictive Layer (if present):	Hydric Soil Present? Yes No
Туре:	Hydric Soil Present? Yes No
Depth (inches):	
Remarks:	
	o indicator
HYDROLOGY Western Hydrology Indicators:	
Wetland Hydrology Indicators:	that apply)   Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a	Secondary Indicators (2 or more required)   Water-Stained Leaves (B9) (except   Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1)	Secondary Indicators (2 or more required)   Water-Stained Leaves (B9) (except   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves (B9) (MLRA 1, 2,   4A, and 4B)   Water-Stained Leaves
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2)	Secondary Indicators (2 or more required)   Water-Stained Leaves (B9) (except   Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)   Drainage Patterns (B10)     Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Secondary Indicators (2 or more required)   Water-Stained Leaves (B9) (except   Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)   Drainage Patterns (B10)     Aquatic Invertebrates (B13)   Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Secondary Indicators (2 or more required)   Water-Stained Leaves (B9) (except   Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  SedIment Deposits (B2) Drift Deposits (B3)	I that apply)   Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)	Ithat apply)   Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)	Ithat apply)   Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  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)	Ithat apply)   Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  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)	Ithat apply)   Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  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)	Ithat apply)   Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Ithat apply)   Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Dec.	Ithat apply)   Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Dec Water Table Present? Yes No Saturation Present?	Ithat apply    Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Descriptions (Includes capillary fringe)	It that apply    Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Dec Water Table Present? Yes No Saturation Present?	It that apply    Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Descriptions (Includes capillary fringe)	It that apply    Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Descriptions (Includes capillary fringe)	It that apply    Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No De Saturation Present? (includes capillary fringe) Yes No De Describe Recorded Data (stream gauge, monitoring weten Remarks:	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check a  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No De Saturation Present? (includes capillary fringe) Yes No De Describe Recorded Data (stream gauge, monitoring weten Remarks:	It that apply   Secondary Indicators (2 or more required)

	THOM DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: HAV+Ranch	city/county: Siski Unu C	8/22/2011
Applicant/Owner: Hart Ranch Investigator(s): Andrea Rance Landform (hillstope, terrace, etc.): hillstope	State: CA Same	Sampling Date:
Investigator(s): Andrea Kabe	Section, Township, Range:	46N CCI Section 2
Landform (hillslope, terrace, etc.): hillslo	Of Local relief (concave, conve	10 10 10 Sect 1, 2+3
Subregion (LRR): MLRA 228	Lat 122 3900 QUI and 4 /2	79326 Datum: NAD 83
Soil Map Unit Name:		A H A A I I I I I I I I I I I I I I I I
Are climatic / hydrologic conditions on the site ty	(Dical for this time of year? Yes V	NWI classification:
Are Vegetation , Soil , or Hydrol	DOV NO significantly disturbed 2	(ff no, explain in Remarks.) "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrole	OUA VO Definition in Alegan Ale	"Normal Circumstances" present? Yes No
		(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach si	ite man showing sampling poin	t locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes	No No	t locations, transects, important features, etc
I DVOIC SOIL Present?	No.	Ithin a Wetland? Yes No
Wetland Hydrology Present?	No	168
Remarks:		
ditch		
		1
VECETATION Has assented		
VEGETATION - Use scientific names	of plants.	
Trong Street, was (District	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across Ali Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC:(A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		1
2.		Total % Cover of: Multiply by:
3.		OBL species x1 =
4.		FACW species x2 =
5.		FAC species x3 =
	-7-410	FACU species x 4 =
Herb Stratum (Plot size: M2)	= Total Cover	UPL species x 5 =
1.		Column Tatala
2.		(0)
		Prevalence Index = B/A =
,		Hydrophytic Vegetation Indicators:
	· Children Company	1 - Rapid Test for Hydrophytic Vegetation
	18 46 17 17 5° 18 4	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3,01
	Configuration	4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
0		5 - Wetland Non-Vascular Plants ¹
1.	1 N 34 4 N AN	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	
Voody Vine Stratum (Plot size:		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	<u> </u>	population, driess distribed of problematic,
	1000	
and the same of th	3 may 200	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation
	1 - 10	Present? Yes No
emarks:		in the same of the
Aldina.	m water of a ch mobile Dyes Da-ch	in presidence very pariam
no	" LIMW LONG CO	THE WILL AND WATER
1	ambu les an	IN COURSE IT WILL
	TW UT WW	· (2)3000

DIL				হ্রাল্ড্রান্ড্র ন্ত্রা	TO D
Profile Description: (Describe to the	e depth needed to document t	he indicator or co ox Features	onfirm the abs	ence of indicators	5-)
Depth Matrix	Redu	% Type	Loc²	Texture	Remarks
(inches) Color (moist)	Color (moist)			Dam	
)-6 dis 45-3-1	<i>DO</i>		7	Conditi	NO LOL
-18 25 YRB/ 1	10 5 YE 16 _		+C	_Sandy!	OLETY
			-		
Type: C=Concentration, D=Depletion	RM=Reduced Matrix, CS=Co	vered or Coated Sa	and Grains.	² Location: PL=Poi	e Lining, M=Matrix.
			Indic	ators for Problem	atic Hydric Soils ³ :
Hydric Soil Indicators: (Applicable		e notea.)		cm Muck (A10)	
Histosol (A1)	Sandy Redox (S5)		— _R	ed Parent Material	(TF2)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Minera	I (F1) (except MLI	RA 1) - V	ery Shallow Dark S	urface (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix	(F2)	0	ther (Explain in Re	marks)
Depleted Below Dark Surface (A	11) Depleted Matrix (F3)		9.	0 1	h, die verstellen and
Thick Dark Surface (A12)	Redox Dark Surface	(F6)	٦,	ndicators of nydrop etland hydrology m	hytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface Redox Depressions (		VV UI	nless disturbed or p	problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (	101			
estrictive Layer (if present):				~	
		Hydric Se	oil Present?	Yes	No
Type: Depth (inches):		_   '			_
marks:					
	and and it	disich	Look	od at!	will in Oc
	xcavated c	A CI CALL	COUR	1.6	<i>V</i> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
			V	then d	+ ch dr
YDROLOGY Vetland Hydrology Indicators:					
Primary Indicators (minimum of one rec	uired; check all that apply)			dary Indicators (2 o	r more required)
-	Water-Stained Le	eaves (B9) (except	t Wa	iter-Stained Leaves	(B9) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, 8	and 4B)	— 4A	<b>, and 4B</b> ) ainage Patterns (B'	10)
High Water Table (A2)	Salt Crust (B11)	(D42)	Dr	/-Season Water Ta	ble (C2)
Saturation (A3)	Aquatic Invertebr	rates (bilo) a Odor (C1)	Sa	turation Visible on	Aerial Imagery (C9)
Water Marks (B1)	Ovidized Rhizosi	pheres along Living	9		
Sediment Deposits (B2)	Roots (C3)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Ge	omorphic Position	
Drift Deposits (B3)	Presence of Red		Sh	allow Aquitard (D3	)
	Recent Iron Red	uction in Tilled	EA	C-Neutral Test (D	5)
_ Algai Mat or Crust (B4)	Soils (C6) Stunted or Stress	eed Plants (D1)	_	10-14e0ff91   607 (D1	·1
Inna Danasita (DE)	(LRR A)	Sed Fiding (D1)	Ra	ised Ant Mounds (	D6) (LRR A)
Iron Deposits (B5) Surface Soil Cracks (B6)	Other (Explain in	n Remarks)	Fr	ost-Heave Hummo	cks (D7)
Inundation Visible on Aerial Imager					
Sparsely Vegetated Concave Surfa	ice (B8)				
Field Observations:	No Depth (inches): _	18in			$\vee$
Surface Water Present? Yes Water Table Present? Yes	No Depth (inches):		Vetland Hydro	logy Present?	Yes No
Water Table Present?  Saturation Present?	~ 140 — Debut (stories). ~		•	==	
(includes capillary fringe) Yes 🔨	No Depth (inches): _				
escribe Recorded Data (stream gauge	, monitoring well, aerial photos,	previous inspection	ons), if availabl	e:	
emarks:			<u> </u>		
emarks:					
emarks:					

0 401	A	
Project/Site: Hart Kanch	city/county: Siskiyou Co	Sempling Date: 8/23/2011
Applicant/Owner: Hart Ranch	State: CA Samp	ling Point:
Investigator(s): Andrea Kane	Section Township Process	45N, R5W Sect 1,2+3
Landform (hillslope, terrace, etc.): hillslope	Local relief (concave, conve	ex, none): CONVEX Slope (%):
Subregion (LRR): NLKA 22R	Lat. 122390092 Long: 41.6	74281 Datum: NAN 8.3
Soil Map Unit Name: 180 IDUIL	Wan	NWI classification:
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes X No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrolog	gy No significantly disturbed? Are	"Normal Circumstances" present? Yes X
Are Vegetation, Soil, or Hydrolog	naturally problematic?	(If needed, explain any answers in Remarks.)
		•
SUMINARY OF FINDINGS - Attach sit	e map showing sampling point	t locations, transects, important features, e
I leader Oak Danie 10		
Modern d Underland Dung and	No Sampled Area wi	ithin a Wetland? Yes No X
Remarks:		
/EGETATION - Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
ree Stratem (Plot size:)	% Cover Species? Status	Number of Dominant Species
		That Are OBL, FACW, or FAC: (A)
		Total Number of Dominant
		Species Across All Strata: (B)
		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
apling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species x1=
		FACW species x 2 =
		FAC species x 3 =
		FACU species x4 = 80
to Stratum (Plot size: $1.m^2$ )	= Total Cover	UPL species (A) x5 = U/A
I described to the said of the	444 14 .40	
13 Marigren a spicala	40 1 180	Column Totals: (A) (B)
- Festuck Maknensis	70 4 FACU	Prevalence Index = B/A =
Bromus tectorum	40 4 UPC	
	10 N 19 19 N	Hydrophytic Vegetation Indicators:
	100000	1 - Rapid Test for Hydrophytic Vegetation
	12 2 C 12 12 12 12 12 12 12 12 12 12 12 12 12	2 - Dominance Test is >50%
		3 - Prevalence index is ≤3.01
		4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation ¹ (Explain)
ody Vine Stratum (Plot size:	= Total Cover	Indicators of hydric soll and wetland hydrology must
(1.01.0120.	L	be present, unless disturbed or problematic.
		to the time of
	= Total Cover	Hydrophytic
_		
are Ground in Herb Stratum	- I otal Cover	Vegetation
are Ground in Herb Stratum	- rotal Cover	Present? Yes No
	- Total Cover	
are Ground in Herb Stratum	- Total Cover	

SOIL	Sandalan and SC
Profile Description: (Describe to the depth needed to docume the Depth Matrix	Rendix realules
Depth Matrix (inches) Color (moist) % Color (moist)	% Type Loc Texture Remarks
0-10 1048313 100	
	201 m
10-18 2,5 YEGB 100	
7 <u></u> 7	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, C	
Hydric Soil Indicators: (Applicable to all LRRs, unless oth	erwise noted.) Indicators for Problematic Hydric Solls ³ :
Histosol (A1) Sandy Redox (	85) 2 cm Muck (A10)
Histic Enipedon (A2) Stripped Matrix	(S6) Red Parent Material (1F2)
Black Histic (A3) Loamy Mucky	
Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Loamy Gleyed Depleted Matrix	(F3)
Thick Dark Surface (A12) Redox Dark Su	rface (F6) 3Indicators of hydrophytic vegetation and 3
Sandy Mucky Mineral (S1) Depleted Dark	
Sandy Gleyed Matrix (S4) Redox Depress	ions (F8) Unless distribed of problematio
Restrictive Layer (if present):	× 1
Type:	Hydric Soil Present? Yes No
Depth (inches):	
Remarks:	
	· • •
noind	icators
noind	icators
HYDROLOGY	icators
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply  Water-Stair	Secondary Indicators (2 or more required)  ned Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stail Surface Water (A1)  MLRA 1, 2	Secondary Indicators (2 or more required)  red Leaves (B9) (except 4A, and 4B)  Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stair Surface Water (A1) High Water Table (A2)  MLRA 1, 2 Sait Crust (A2)	Secondary Indicators (2 or more required)  The Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11) Drainage Patterns (B10)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stail  Surface Water (A1) High Water Table (A2) Saturation (A3)  MLRA 1, 2 Saft Crust (A) Aquatic Inv	Secondary Indicators (2 or more required)  Hed Leaves (B9) (except  AA, and 4B)  B11)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply  Water-Stair  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Hydrogen Societies  Oxidized R	Secondary Indicators (2 or more required)  The Leaves (B9) (except 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stair  Surface Water (A1) MLRA 1, 2 High Water Table (A2) Satt Crust ( Saturation (A3) Aquatic Inv Water Marks (B1) Hydrogen Soxidized R Sediment Deposits (B2) Roots (C3)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  B11)  Pertebrates (B13)  Sulfide Odor (C1)  hizospheres along Living  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stain Surface Water (A1) High Water Table (A2) Satt Crust ( Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Presence C	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Mark 1, 2, 4A, and 4B)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Mark 1, 2, 4A, and 4B)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Mark 1, 2, 4A, and 4B)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Mark 1, 2, 4A, and 4B)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Mark 1, 2, 4A, and 4B)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Mark 1, 2, 4A, and 4B)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Mark 1, 2, 4A, and 4B)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply Water-Stain MLRA 1, 2  High Water Table (A2) Satt Crust (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Sediment Deposits (B4)  Algal Mat or Crust (B4)  Wetland Hydrogen Sediment Deposits (B3) Recent Iron Soils (C6)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  B11)  ertebrates (B13)  Sulfide Odor (C1)  hizospheres along Living of Reduced Iron (C4)  n Reduction in Tilled  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stair  Surface Water (A1) MLRA 1, 2 High Water Table (A2) Sait Crust ( Saturation (A3) Aquatic Inv Water Marks (B1) Hydrogen ( Oxidized R Sediment Deposits (B2) Roots (C3) Drift Deposits (B3) Presence (Recent Iron Algal Mat or Crust (B4) Stunted or	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11) Pertebrates (B13) Sulfide Odor (C1) hizospheres along Living of Reduced Iron (C4) n Reduction in Tilled  Stressed Plants (D1)  Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stain Surface Water (A1) MLRA 1, 2 High Water Table (A2) Sait Crust ( Saturation (A3) Aquatic Inv Water Marks (B1) Oxidized R Sediment Deposits (B2) Roots (C3) Drift Deposits (B3) Presence (C3) Algal Mat or Crust (B4) Soils (C6) Iron Deposits (B5) (LRR A)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11)  Pertebrates (B13)  Sulfide Odor (C1)  Inizospheres along Living  of Reduced Iron (C4)  In Reduction in Tilled  Stressed Plants (D1)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stain 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 Soli Cracks (B6)  Wetland Hydrogen Solits (C3) Presence C3 Recent Iron Solis (C6) Stunted or (LRR A) Other (Exp	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11) Pertebrates (B13) Sulfide Odor (C1) Inizospheres along Living In Reduced Iron (C4) In Reduction in Tilled  Stressed Plants (D1)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stain Surface Water (A1) MLRA 1, 2 High Water Table (A2) Sait Crust ( Saturation (A3) Aquatic Inv Water Marks (B1) Oxidized R Sediment Deposits (B2) Roots (C3) Drift Deposits (B3) Presence (C3) Algal Mat or Crust (B4) Soils (C6) Iron Deposits (B5) (LRR A)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11)  Pertebrates (B13)  Sulfide Odor (C1)  Inizospheres along Living  of Reduced Iron (C4)  In Reduction in Tilled  Stressed Plants (D1)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stair  Surface Water (A1)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11) Pertebrates (B13) Sulfide Odor (C1) Inizospheres along Living of Reduced Iron (C4) In Reduction in Tilled Stressed Plants (D1)  Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stair  Surface Water (A1)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11)  Pertebrates (B13)  Sulfide Odor (C1)  hizospheres along Living  of Reduced fron (C4)  n Reduction in Tilled  Stressed Plants (D1)  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stair  Surface Water (A1)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11) Pertebrates (B13) Sulfide Odor (C1) hizospheres along Living of Reduced Iron (C4) n Reduction in Tilled  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stail  Surface Water (A1) Water-Stail  High Water Table (A2) Sait Crust (A1) Aquatic Inv.  High Water Marks (B1) Hydrogen (A2) Aquatic Inv.  Sediment Deposits (B2) Roots (C3) Presence (C3) Prift Deposits (B3) Recent Iron  Algal Mat or Crust (B4) Soils (C6) Stunted or Iron Deposits (B5) (LRR A) Other (Exp.  Iron Deposits (B5) (LRR A) Other (Exp.  Field Observations: Surface Water Present? Yes No Depth (inche Water Table Present? Yes No Saturation Present?	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11) Pertebrates (B13) Sulfide Odor (C1) Inizospheres along Living Of Reduced Iron (C4) In Reduction in Tilled  Stressed Plants (D1)  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stair  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 Soli Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Water Table Present? Ves No Depth (inche Saturation Present? (includes capillary fringe) Yes No Depth (inche	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11)  Pertebrates (B13)  Sulfide Odor (C1)  Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Stressed Plants (D1)  Wetland Hydrology Present? Yes No
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stail  Surface Water (A1)	Secondary Indicators (2 or more required)  Ted Leaves (B9) (except  4A, and 4B)  B11)  Pertebrates (B13)  Sulfide Odor (C1)  Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stair  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 Soli Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Water Table Present? Ves No Depth (inche Saturation Present? (includes capillary fringe) Yes No Depth (inche	Secondary Indicators (2 or more required)  Ted Leaves (B9) (except  4A, and 4B)  B11)  Pertebrates (B13)  Sulfide Odor (C1)  Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stair  Surface Water (A1)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11)  Pertebrates (B13)  Sulfide Odor (C1)  Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Stressed Plants (D1)  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stair  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Depth (inche Water Table Present? Yes No Depth (inche Describe Recorded Data (stream gauge, monitoring well, aerial property of the content of the conten	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11)  Pertebrates (B13)  Sulfide Odor (C1)  Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Stressed Plants (D1)  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Water-Stail Surface Water (A1) Water A1, 2 High Water Table (A2) Salt Crust (A1) Water Marks (B1) Hydrogen (A2) Sediment Deposits (B2) Roots (C3) Drift Deposits (B3) Presence (C3) Algal Mat or Crust (B4) Soils (C6) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Depth (Inche Water Table Present? Yes No Depth (inche Saturation Present? (includes capillary fringe) Yes No Depth (inche Describe Recorded Data (stream gauge, monitoring well, aerial place)  Remarks:	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  B11)  Pertebrates (B13)  Sulfide Odor (C1)  Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Stressed Plants (D1)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Stressed Plants (D1)  Wetland Hydrology Present?  Wetland Hydrology Present?  Yes No

Are Vegetation, Soil, or Hydrology No significantly disturbed? Are "No Are Vegetation, Soil, or Hydrology No naturally problematic? (If SUMMARY OF FINDINGS - Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No	Sampling Date: 8/23/2016  g Point: 9a  15 N
Investigator(s): Marka Kaloe Section, Township, Range: Landform (hillslope, terrace, etc.): Lalls low Local relief (concave, convex, r. Subregion (LRR): MLRA 228 Latt 12,388713 Long: MLRA 228 Latt 12,388713 Long: MLRA 228 Soil Map Unit Name: 180 Duite Lorin Name: 180 Duite Name: 180 Du	Point: YA SECF 1 2 + 3 none): Con Clex Slope (%):  QO Y3 Datum: NA
Section, Township, Range:  Landform (hillislope, terrace, etc.):  Subregion (LRR):  MLRA 228  Latt 3388713 Long:  Local relief (concave, convex, r. Subregion (LRR):  MLRA 228  Are 13388713 Long:  MLRA 228  Are 13388713 Long:  MLRA 28  Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No Are Vegetation Soil or Hydrology ND significantly disturbed?  Are "No Are Vegetation - Soil or Hydrology ND naturally problematic? (I)  SUMMARY OF FINDINGS - Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No X Is the Sampled Area with Hydrophytic Vegetation Present? Yes No X Is the Sampled Area with Wetland Hydrology Present? Yes No X Is the Sampled Area with Wetland Hydrology Present?  VEGETATION - Use scientific names of plants.  VEGETATION - Use scientific names of plants.  VEGETATION - Use scientific names of plants.  - Tree Stratum (Plot size: ) Absolute Dominant Indicator Species? Status  1.	none): Con Clex Slope (%):  QO 43 Datum: NAN 83  IWI classification:  (If no, explain in Remarks.)  formal Circumstances" present? Yes X No  (If needed, explain any answers in Remarks.)  ocations, transects, important features, et alin a Wetland? Yes No  Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  Prevalence Index worksheet:  Total % Cover of: Multiply by:
Subregion (LRR): MLRA ZR Latt 388713 Long: LOCAL relief (concave, convex, sorties)  Soil Map Unit Name: 180 Duit Livina  Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No Are Vegetation Soil or Hydrology No significantly disturbed? Are 'No Are Vegetation Soil or Hydrology No naturally problematic? ((I)  SUMMARY OF FINDINGS - Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No X Is the Sampled Area with Hydrohic Soil Present? Yes No X Is the Sampled Area with Welland Hydrology Present? Yes No X Is the Sampled Area with Welland Hydrology Present? Yes No X Is the Sampled Area with No X Is the S	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Prevalence Index worksheet:  Total % Cover of:  Mild Classification:  NA  No  No  No  No  No  No  No  No  No
Soil Map Unit Name:    Soil Map Unit Name:   Soil	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Williply by:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No Are Vegetation Soil or Hydrology No significantly disturbed? Are "No Are Vegetation Soil or Hydrology No naturally problematic? (If Yes No Yes Yes No Y	Will classification:  (If no, explain in Remarks.)  ormal Circumstances" present? Yes  No  (If needed, explain any answers in Remarks.)  ocations, transects, important features, et  No  ilin a Wetland? Yes  No  Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  (A)  Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)  Prevalence Index worksheet: Total % Cover of: Multiply by:
Are Vegetation, Soil, or Hydrology No significantly disturbed? Are "No Are Vegetation, Soil, or Hydrology No naturally problematic? ((I) SUMMARY OF FINDINGS - Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No Is the Sampled Area within Hydrophytic Vegetation Present? Yes No Is the Sampled Area within Hydrology Present? Yes No	Ocations, transects, important features, et alin a Wetland?  Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  White is a species of the company of th
Are Vegetation , Soll , or Hydrology NO naturally problematic?  SUMMARY OF FINDINGS - Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No Hydrosology Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrolo	Cormal Circumstances" present? Yes No (If needed, explain any answers in Remarks.)  Ocations, transects, important features, et alin a Wetland? Yes No
Are Vegetation, Soil, or Hydrology ND naturally problematic? (if  SUMMARY OF FINDINGS - Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No is the Sampled Area within Hydrophytic Vegetation Present? Yes No is the Sampled Area within Hydrology Present? Yes No	Cormal Circumstances" present? Yes No (If needed, explain any answers in Remarks.)  Ocations, transects, important features, et alin a Wetland? Yes No
SUMMARY OF FINDINGS - Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No X Is the Sampled Area within Wetland Hydrology Present? Yes No X Is the Sampled Area within Wetland Hydrology Present? Yes No X Is the Sampled Area within Wetland Hydrology Present? Yes No X Is the Sampled Area within Wetland Hydrology Present? Yes No X Is the Sampled Area within Wetland Hydrology Present? Yes No X Is the Sampled Area within Wetland Hydrology Present? Yes No X Is the Sampled Area within Wetland Hydrology Present? Yes No X Is the Sampled Area within WEGETATION - Use scientific names of plants.  Tree Stratum (Plot size: ) Absolute Dominant Indicator Species? Status  1. Sapling/Shrub Stratum (Plot size: ) = Total Cover = Total Cover   Total Cover	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  Prevalence Index worksheet:  Total % Cover of:  Multiply by:
SUMMARY OF FINDINGS - Attach site map showing sampling point in the sample of the samp	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  Prevalence Index worksheet:  Total % Cover of:  Multiply by:
Hydric Soil Present?  Wetland Hydrology Present?  Remarks:  WEGETATION – Use scientific names of plants.  Tree Stratum (Plot size: )  Sapling/Shrub Stratum (Plot size: )  Sapling/Shrub Stratum (Plot size: )	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  Prevalence Index worksheet: Total % Cover of:  Multiply by:
Hydric Soil Present?  Wetland Hydrology Present?  Remarks:   VEGETATION – Use scientific names of plants.  Tree Stratum (Plot size: )  Sapling/Shrub Stratum (Plot size: )  Sapling/Shrub Stratum (Plot size: )	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  Prevalence Index worksheet: Total % Cover of:  Multiply by:
Remarks:    Continue	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)  Prevalence Index worksheet:  Total % Cover of:  Multiply by:
VEGETATION - Use scientific names of plants.  Tree Stratum (Plot size: ) Absolute Dominant Indicator Species? Status  1.	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)  Prevalence Index worksheet: Total % Cover of:  Multiply by:
VEGETATION - Use scientific names of plants.  Tree Stratum (Plot size:) Absolute % Cover Species? Status  1	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)  Prevalence Index worksheet: Total % Cover of:  Multiply by:
VEGETATION – Use scientific names of plants.  Tree Stratum (Plot size:)	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)  Prevalence Index worksheet:  Total % Cover of: Multiply by:
VEGETATION – Use scientific names of plants.  Tree Stratum (Plot size:)	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)  Prevalence Index worksheet:  Total % Cover of: Multiply by:
Absolute Dominant Indicator % Cover Species? Status  2. 3. 4. = Total Cover  Earling/Shrub Stratum (Plot size: )	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)  Prevalence Index worksheet:  Total % Cover of: Multiply by:
Absolute Dominant Indicator % Cover Species? Status  2	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)  Prevalence Index worksheet: Total % Cover of:  Multiply by:
### Cover Species? Status  ### Cover Species? Status  ### Cover Species? Status  ### Total Cover  ### Stratum (Plot size:  ### Total Cover  ### Stratum (Plot size: MZ)  #### Total Cover  ### Stratum (Plot size: MZ)  #### Total Cover	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)  Prevalence Index worksheet:  Total % Cover of: Multiply by:
= Total Cover    Sapling/Shrub Stratum   Plot size:     = Total Cover	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)  Prevalence Index worksheet:  Total % Cover of: Multiply by:
= Total Cover    apling/Shrub Stratum   Plot size:   = Total Cover	That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)  Prevalence Index worksheet:  Total % Cover of:  Multiply by:
= Total Cover  apling/Shrub Stratum (Plot size:  = Total Cover  = Total Cover    Plot size:   MZ	Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:  Prevalence Index worksheet: Total % Cover of:  Multiply by:
= Total Cover    apling/Shrub Stratum (Plot size: )	Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:  Prevalence Index worksheet: Total % Cover of:  Multiply by:
erb Stratum (Plot size: )  Erb Stratum (Plot size:   MZ)  Erb Stratum (Plot size:   MZ)  (Cn + Our Ca Solstitials 4)	Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)  Prevalence Index worksheet: Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size: = Total Cover  erb Stratum (Plot size: MZ) = Total Cover  (Cn +Our Ca Solstitials 4) Y UPL	Prevalence Index worksheet:  Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size: = Total Cover  erb Stratum (Plot size: MZ) = Total Cover  (Cn +Our Ca Solstitials 4) Y UPL	Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size:)  arb Stratum (Plot size: MZ) = Total Cover  (Chi + Out **CA Sofshitialis 4)	Total % Cover of: Multiply by:
erb Stratum (Plot size:   MZ) = Total Cover (CN + OUNTED SOISTITIALIS 4) Y UPL	Total % Cover of: Multiply by:
erb Stratum (Plot size:  MZ) = Total Cover  (En tourse solstitials 4) Y UPL	
erb Stratum (Plot size: MZ) = Total Cover  (CN+OUTER SOISTITIALS 40 Y UPL	OBL species x1 =
erb Stratum (Plot size: MZ) = Total Cover  (CEN + OUT CO SOISTITIALIS 40 Y UPL	
erb Stratum (Plot size: IMZ) = Total Cover  (CN + OUNTED SOISTITIALIS 40 Y UPL	FACW species x 2 =
ro Stratum (Plot size: IMZ) = Total Cover  (Cn tourca solstitials 40 y UPL	FAC species x3 =
Centaurea Solstitialis 40 Y UPL	FACU species x4=
Centaurea solstitialis 40 Y UPL	
	UPL species 40 x 5 = 200
	Column Totals: (A) 220 (B)
	Prevalence Index = B/A =
	Lievaleuce iudex = R/Y =
	Under the distance of the second
	Hydrophytic Vegetation Indicators:
	_ 1 - Rapid Test for Hydrophytic Vegetation
And the property of	2 - Dominance Test is >50%
	3 - Prevalence Index is <3 n1
The state of the s	4 - Morphological Adaptations (Provide supporting
	data in Remarks or on a separate sheet)
	5 - Wetland Non-Vascular Plants1
** ***	Problematic Hydrophytic Vegetation¹ (Explain)
40 = Total Cover 14	
achi I ff - Ot - I - I - I - I - I - I - I - I - I -	Indicators of hydric soil and wetland hydrology must
De la companya de la	e present, unless disturbed or problematic.
	九年 、 連続発力
a de la companya de l	the state of the s
	ydrophytic egetation
Property of the Stratum	resent? Yes No
narks:	

			Marigling Polisi	90
Profile Description: (Describe to the d	epth needed to document the indicate	cator or confirm the	absence of indicators.)	
Depth Matrix	Redox realu	162	Texture	Remarks
(inches) Color (moist) 4 %	Color (moist) %	Type Loc²		
D-11 254842 10	·	loce	m	
11-18 25426/3 10			LOGIN	
11-18 GOTEMIS TO				
		<u> </u>		
¹ Type: C=Concentration, D=Depletion, F	M=Reduced Matrix, CS=Covered or	Coated Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to			dicators for Problemati	c Hydric Solls³:
			2 cm Muck (A10)	
Histosol (A1)	Sandy Redox (S5) Stripped Matrix (S6)		Red Parent Material (T	F2)
Histic Epipedon (A2) Black Histic (A3)	Loamy Mucky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Sur	face (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Rema	arks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		31	tic vegetation and
Thick Dark Surface (A12)	Redox Dark Surface (F6)		³ Indicators of hydrophy wetland hydrology mus	
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) Redox Depressions (F8)		unless disturbed or pro	blematic
Sandy Gleyed Matrix (S4)	Redux Depressions (Fo)		2	
Restrictive Layer (if present):				
		Hydric Soil Present	? Yes	No X
Type: Depth (inches):		-		÷
			····	
emarks:				
	noindica	tore		
	no marca			
IYDROLOGY				
Wetland Hydrology Indicators:		Sac.	condary Indicators (2 or r	nore required)
Primary Indicators (minimum of one require	ed; check all that apply)		Water-Stained Leaves (	B9) (MLRA 1, 2,
	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B)	sa) (excebr	4A, and 4B)	
Surface Water (A1)	Salt Crust (B11)	_	Drainage Patterns (B10)	)
High Water Table (A2) Saturation (A3)	Aquatic Invertebrates (B	13)	Dry-Season Water Table	e (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (	C1)	Saturation Visible on Ac	erial Imagery (C9)
449761 IAIDI KO (D.I.)	Oxidized Rhizospheres a	along Living	O	10)
Sediment Deposits (B2)	Roots (C3)		Geomorphic Position (D	12)
Drift Deposits (B3)	Presence of Reduced Iro	on (C4)	Shallow Aquitard (D3)	
	Recent Iron Reduction in	1 I Mea	FAC-Neutral Test (D5)	
Algal Mat or Crust (B4)	Soils (C6) Stunted or Stressed Plan	nts (D1)		
Ivan Danasita (DE)	(LRR A)	Name (5 1)	Raised Ant Mounds (D6	3) (LRR A)
Iron Deposits (B5) Surface Soil Cracks (B6)	Other (Explain in Remar	ks)	Frost-Heave Hummock	s (D7)
Inundation Visible on Aerial Imagery (				
Sparsely Vegetated Concave Surface	(B8)			
				····
Field Observations:	. X	[		. 4
Odilado Hator Hospitti	lo Depth (inches):	Wetland Hy	drology Present? Y	es No 🙏
11000 1000 11000 110	lo Depth (inches):	Menand UA		
Saturation Present? (includes capillary fringe) Yes	No. Depth (inches):	}		
(includes capillary fringe) Yes Describe Recorded Data (stream gauge, n	poitoring well serial photos previous	s inspections), if avail	able:	
Describe Recorded Data (stream gauge, n	ornitorning went acrest priotos, previou	o napronomy, n oren		
Remarks:	<del></del>			
	, <u>6</u> 1			
	no indic	nto ce		

O DETERMINA	IIION DATA FORM - Western I	flountains, Valleys, and Coast Region
Project/Site: HAV+Ranch	city/county: Siskiyou Co	8/22/2011
Applicant/Owner: Hart Ranch	State: CA Samp	ling Paint
Landform (hillslope, terrace, etc.):   hillslope	Of coal relief (concerns comme	45N, R5W Sect 1, 2+3 x, none): CONCOLUL Slope (%): 6
Subregion (LRR): MLRA 228	Late 1203 309210 . Lane 411 /	x, none): COMO M. Slope (%):
Soil Map Unit Name: 180	Lat: 122388712 Long: 41.6	
	signal for this time of	NWI classification:
Are climatic / hydrologic conditions on the site type	No.	(If no, explain in Remarks.) "Normal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrolo	gy No naturally problematic?	"Normal Circumstances" present? Yes No
, or riyaldid	99 NO risturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	e man showing compling nain	locations, transects, important features, etc.
	No No	locations, transects, important features, etc.
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No is the Sampled Area w	thin a Wetland? Yes No
Remarks:		
ditch		
VEGETATION - Use scientific names	of plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
1	% Cover Species? Status	Number of Dominant Species
2.		That Are OBL, FACW, or FAC:(A)
3.		Total Number of Dominant Species Across All Strata: (B)
4.		Species Across All Strata: (B) Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x1=
3.		
4.		
5.		FAC species x 3 =
9	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: M)		UPL species x 5 =
1.		Column Totals: (A) (B)
2.	1 7 37	Busyslamas Indo Bus
3.		Prevalence Index = B/A =
4.		Hydrophytic Vegetation Indicators:
5.	The state of the s	1 - Rapid Test for Hydrophytic Vegetation
	14.5 20 15 3 k	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
3.		4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
[O		5 - Wetland Non-Vascular Plants ¹
1.	1 11 12 12	Problematic Hydrophytic Vegetation¹ (Explain)
, No.	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
Noody Vine Stratum (Plot size:)	ing war and the same and the sa	be present, unless disturbed or problematic.
		E. C. Carlos
	A Control of the Control	Made and the second sec
	≃ Total Cover	nydrophytic
% Bare Ground in Herb Stratum		Vegetation Present? Yes No
		International Control
Remarks:	ves open water Dy	es Da-channe redge ves paria
ทุบ	D WILLIAM	OC (1) OF WHOM WELL VERY MAIN
* "	your Dy	Sour Libra

RL							va Soloj	70
Profile Description: (Describe	to the depth n	needed to docur	ment the inc	dicator or co	onfirm the a	bsence of ind	cators.	•
Depth Matrix	<u></u> %	Color (moist)	Redox Fea	Type'	Loc ²	Texture		Remarks
(inches) Color (moist)	<u> </u>	Color (moist)		1300				
2.5 YR"	3 <u>/00</u> _				A	LOGI		
3-18 2.5Velov	190	SUP 480	10		PL	Sam	diff	1am
		77.5						, ,
						<u> </u>		
	-							
<del></del>								
						21	LeBera Lia	ing, M=Matrix.
Type: C=Concentration, D=De	pletion, RM=Re	duced Matrix, CS	S=Covered	or Coated Sa				
Hydric Soil Indicators: (Appl	icable to all LR	RRs, unless othe	erwise note	ed.)	Inc	licators for Pro	blematic f	lydric Soils":
Histosol (A1)	. 🙈	Sandy Redox (S				2 cm Muck (A'		
Histic Epipedon (A2)	<del>/~</del>	Stripped Matrix				Red Parent Ma	terial (TF2)	)
Black Histic (A3)	6-70	Loamy Mucky N	Aineral (F1)	(except MLF	RA 1)	Very Shallow I		
Hydrogen Sulfide (A4)	_	Loamy Gleyed !				Other (Explain	in Remarks	s)
Depleted Below Dark Surfa	ice (A11)	Depleted Matrix	(F3)					
Thick Dark Surface (A12)	_	Redox Dark Sur						vegetation and
Sandy Mucky Mineral (S1)	-	Depleted Dark S		)		wetland hydroi unless disturb		
Sandy Gleyed Matrix (S4)		Redox Depress	ions (F8)			uniess disturbi	ed of proble	
							A.,	
strictive Layer (if present):				Unida Ba	oll Present	. Von	Xμ	lo
Type:			_~	Hydric Sc	on Present	168	<u> </u>	
Depth (inches):				1				
marks:							,	
DROLOGY					San	andon Indicato	s /2 or mor	e required)
DROLOGY	ne required; che	eck all that apply	)	/DOV 6		ondary Indicator	s (2 or mor	e required)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of o	ne required; che	Water-Stain	ned Leaves (	(B9) (except		Vater-Stained L	s (2 or mor eaves (B9)	e required) (MLRA 1, 2,
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of or	ne required; che	Water-Stain MLRA 1, 2,	ed Leaves ( 4 <mark>A, and 4</mark> E			Vater-Stained L IA, and 4B)	eaves (B9)	e required) (MLRA 1, 2,
DROLOGY  Stland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2)	ne required; che	Water-Stain MLRA 1, 2, Salt Crust (I	ned Leaves ( . <b>4A, and 4B</b> B11)	3)		Vater-Stained L I <b>A, and 4B</b> ) Orainage Patter	eaves (B9) ns (B10)	(MLRA 1, 2,
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3)	ne required; che	Water-Stain  MLRA 1, 2,  Salt Crust (I  Aquatic Inve	ned Leaves ( 4 <b>A, and 4E</b> B11) ertebrates (I	B13)	— ·	Water-Stained L I <b>A, and 4B</b> ) Orainage Patter Ory-Season Wa	eaves (B9) ns (B10) ter Table (C	(MLRA 1, 2,
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of o	ne required; che	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve	ned Leaves ( <b>4A, and 4E</b> B11) ertebrates (I Sulfide Odor	B13) (C1)		Vater-Stained L I <b>A, and 4B</b> ) Orainage Patter	eaves (B9) ns (B10) ter Table (C	(MLRA 1, 2,
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	ne required; che	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh	ned Leaves ( <b>4A, and 4E</b> B11) ertebrates (I Sulfide Odor	B13)		Vater-Stained L IA, and 4B) Drainage Patter Dry-Season Wa Saturation Visib	eaves (B9) ns (B10) ter Table (C le on Aerial	(MLRA 1, 2,
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	ne required; che	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Roots (C3)	ned Leaves ( 4A, and 4E B11) ertebrates (I Sulfide Odor hizospheres	B13) (C1) along Living		Water-Stained L I <b>A, and 4B</b> ) Orainage Patter Ory-Season Wa	eaves (B9) ns (B10) ter Table (C le on Aerial sition (D2)	(MLRA 1, 2,
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	ne required; che	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of	ned Leaves ( 4A, and 4E B11) ertebrates (I Sulfide Odor hizospheres f Reduced I	B13) (C1) along Living ron (C4)		Vater-Stained L IA, and 4B) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po	eaves (B9) ns (B10) ter Table (C le on Aerial sition (D2)	(MLRA 1, 2,
DROLOGY  etland Hydrology Indicators: imary Indicators (minimum of or High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	ne required; che	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of	ned Leaves ( 4A, and 4E B11) ertebrates (I Sulfide Odor hizospheres	B13) (C1) along Living ron (C4)		Vater-Stained L IA, and 4B) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po	eaves (B9) ns (B10) ter Table (C le on Aerial sition (D2) d (D3)	(MLRA 1, 2,
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	ne required; che	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence o Recent Iron Soils (C6)	ned Leaves ( 4A, and 4E B11) ertebrates (I Sulfide Odor hizospheres f Reduced I	B13) (C1) along Living ron (C4) in Tilled		Vater-Stained L IA, and 4B) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar FAC-Neutral Te	eaves (B9) ns (B10) ter Table (C le on Aerial sition (D2) d (D3) st (D5)	(MLRA 1, 2, C2) Imagery (C9)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	ne required; che	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Roots (C3) Presence or Recent Iron Soils (C6) Stunted or 3 (LRR A)	ned Leaves ( 4A, and 4E B11) ertebrates (I Gulfide Odor hizospheres f Reduced I n Reduction Stressed Pla	B13) (C1) along Living ron (C4) in Tilled ants (D1)		Water-Stained L IA, and 4B) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar FAC-Neutral Te Raised Ant Mou	eaves (B9) ns (B10) ter Table (C le on Aerial sition (D2) d (D3) st (D5) unds (D6) (L	(MLRA 1, 2, C2) Imagery (C9)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	ne required; che	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Roots (C3) Presence or Recent Iron Soils (C6) Stunted or 3 (LRR A)	ned Leaves ( 4A, and 4E B11) ertebrates (I Sulfide Odor hizospheres f Reduced I n Reduction	B13) (C1) along Living ron (C4) in Tilled ants (D1)		Vater-Stained L IA, and 4B) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar FAC-Neutral Te	eaves (B9) ns (B10) ter Table (C le on Aerial sition (D2) d (D3) st (D5) unds (D6) (L	(MLRA 1, 2, C2) Imagery (C9)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In	nagery (B7)	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Roots (C3) Presence or Recent Iron Soils (C6) Stunted or 3 (LRR A)	ned Leaves ( 4A, and 4E B11) ertebrates (I Gulfide Odor hizospheres f Reduced I n Reduction Stressed Pla	B13) (C1) along Living ron (C4) in Tilled ants (D1)		Water-Stained L IA, and 4B) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar FAC-Neutral Te Raised Ant Mou	eaves (B9) ns (B10) ter Table (C le on Aerial sition (D2) d (D3) st (D5) unds (D6) (L	(MLRA 1, 2, C2) Imagery (C9)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	nagery (B7)	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Roots (C3) Presence or Recent Iron Soils (C6) Stunted or 3 (LRR A)	ned Leaves ( 4A, and 4E B11) ertebrates (I Gulfide Odor hizospheres f Reduced I n Reduction Stressed Pla	B13) (C1) along Living ron (C4) in Tilled ants (D1)		Water-Stained L IA, and 4B) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar FAC-Neutral Te Raised Ant Mou	eaves (B9) ns (B10) ter Table (C le on Aerial sition (D2) d (D3) st (D5) unds (D6) (L	(MLRA 1, 2, C2) Imagery (C9)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave	nagery (B7)	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Roots (C3) Presence or Recent Iron Soils (C6) Stunted or 3 (LRR A)	ned Leaves ( 4A, and 4E B11) ertebrates (I Gulfide Odor hizospheres f Reduced I n Reduction Stressed Pla	B13) (C1) along Living ron (C4) in Tilled ants (D1)		Water-Stained L IA, and 4B) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar FAC-Neutral Te Raised Ant Mou	eaves (B9) ns (B10) ter Table (C le on Aerial sition (D2) d (D3) st (D5) unds (D6) (L	(MLRA 1, 2, C2) Imagery (C9)
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DROLOGY  Itland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave  Indicated Water Present?  Indicated Wat	nagery (B7) Surface (B8)	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence or Recent Iron Soils (C6) Stunted or s (LRR A) Other (Expl	AA, and 4E B11) ertebrates (I Sulfide Odor nizospheres of Reduced I n Reduction Stressed Pla lain in Rema	B13) (C1) along Living ron (C4) in Tilled ants (D1) arks)	etland Hyd	Vater-Stained L IA, and 4B) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar FAC-Neutral Te Raised Ant Mou Frost-Heave Hu  rology Present	eaves (B9) ns (B10) ter Table (Cle on Aerial sition (D2) d (D3) st (D5) ands (D6) (L	(MLRA 1, 2, C2) Imagery (C9)

	The state of the s	Mountains, Valleys, and Coast Region
Project/Site: HAVERANTA	Sieking D	8/2-1
Application owner.	Ctatas (27)	
illivestigator(s).	Section Township by:	
	WAR I DOWN THE TOTAL AND A COMMISSION OF THE PROPERTY OF THE P	ak nama). Ca a a a a
	_ Lat. <u>  [0</u> ] d, 30 0 777 Long: // Long	9.91.44 Datum: NA) §3
Soil Map Unit Name: 180 //		
Are cirriatic / nyorologic conditions on the site to	voical for this time of years Var.	
; con ; ci riyatol	logy No significantly disturbed? Are	o (If no, explain in Remarks.)  "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrol	ogy NO naturally problematic?	No
		(If needed, explain any answers in Remarks.)  It locations, transects, important features, et
Wetland Hydrology Present? Yes	No Is the Sampled Area w	vithin a Wetland? Yes No
Remarks:		
$\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$	ch bank	
VEGETATION - Use scientific names	of plants.	
Trong Chapture (Dist of	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
7.		That Are OBL, FACW, or FAC:
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size: )		Prevalence Index worksheet:
		T. 1 1 2
		OBL species x1 =
		FACW species x 2 =
		FAC species x3 =
		FACU species x 4 =
erb Stratum (Plot size: W12)	= Total Cover	UPL species 40 x5 = 200
A section of the sect	HADE IN ITEM	Column Totals: (A) ZOO (B)
Centourea Solstitiales	40% Y UPL	Solution Totals. (A) (B)
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	Page 114 Line	1 - Rapid Test for Hydrophytic Vegetation
	A ST PERSON I	2 - Dominance Test is >50%
		3 - Prevalence Index is <3.01
	1986/JH 2111	
		4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
	The second second	Problematic Hydrophytic Vegetation¹ (Explain)
\	40 = Total Cover	
podv Vine Stratum (Plot size: )	Total Cover	Indicators of hydric soil and wetland hydrology must
	į.	be present, unless disturbed or problematic.
	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	are approx
	the state of the state of	Hydrophytic
		· · Jurophtytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation Present? Yes No
	= Total Cover	
Bare Ground in Herb Stratum	= Total Cover	

SOIL			হুইবারীটিনে - ত্যালি	
Profile Description: (Describe to the de	epth needed to document the inc	licator or confirm the	absence of Indicators.)	
Depth Matrix (inches) Color (moist) %	Redox Fea		Texture	Remarks
			Omm	
0-10 35 YEVE 100			· (10)	
10-18 254R45 100	· · · · · · · · · · · · · · · · · · ·			
			s <u> </u>	
		<del></del>		
	_			
		<del>-</del>		
	NA Produced Metric CS=Coursed	or Coated Sand Grains	² Location: PL=Pore Li	ning, M=Matrix.
¹ Type: C=Concentration, D=Depletion, R			dicators for Problematic	
Hydric Soil Indicators: (Applicable to		10.)	2 cm Muck (A10)	,
Histosol (A1)	Sandy Redox (S5)		Red Parent Material (TF:	2)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1)	/except MI RA 1)	Very Shallow Dark Surfa	-/ ce (TF12)
Black Histic (A3)	Loamy Gleyed Matrix (F2)	(except military)	Other (Explain in Remark	ks)
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	<del>,,</del>		
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophytic	vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7	)	wetland hydrology must unless disturbed or prob	pe present, lematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	<del></del>	Unless disturbed or prob	BITIANO
		į		la.
Restrictive Layer (if present):		Hydric Soil Presen	? Yes	No A
Type:		1,,41,000		34
Depth (inches):				· · · · · · · · · · · · · · · · · · ·
Remarks:				
HYDROLOGY	10 indicato	<u> </u>		
Wetland Hydrology Indicators:			condary Indicators (2 or mo	re required)
makes and the state of the parties o			Water-Stained Leaves (B	
Primary Indicators (minimum of one require	ed; check all that apply)			) (MLRA 1, 2,
	Water-Stained Leaves	(89) ( <b>excep</b> t	4A, and 4B)	) (MLRA 1, 2,
Surface Water (A1)	Water-Stained Leaves MLRA 1, 2, 4A, and 4	B)	<b>4A, and 4B</b> ) Drainage Patterns (B10)	9) (MLRA 1, 2,
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11)	B)	<b>4A, and 4B</b> ) Drainage Patterns (B10) Dry-Season Water Table	9) (MLRA 1, 2, (C2)
Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves MLRA 1, 2, 4A, and 4l Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol	B13) (C1)	<b>4A, and 4B</b> ) Drainage Patterns (B10)	9) (MLRA 1, 2, (C2)
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Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3)	B13) r (C1) s along Living	4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2)	(C2) (MLRA 1, 2, (C2) (C9)
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Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem	B13) F (C1) s along Living Iron (C4) in Tilled lants (D1)	4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) al Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B5) Sparsely Vegetated Concave Surface	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem	B13) F (C1) s along Living Iron (C4) in Tilled lants (D1)	4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) al Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B5) Sparsely Vegetated Concave Surface  Field Observations:	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem 37) (B8)	B13) (C1) s along Living  Iron (C4) in Tilled lants (D1) arks)	4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) al Imagery (C9) (LRR A) (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B1) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present?  Yes	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem 37) (B8) Depth (inches):	B13) (C1) s along Living  Iron (C4) in Tilled lants (D1) arks)	4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) (MLRA 1, 2, (C2) (C2) (Imagery (C9) (LRR A) (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Yes	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem 37) (B8)	B13) (C1) s along Living  Iron (C4) in Tilled lants (D1) arks)	4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) al Imagery (C9) (LRR A) (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (E) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (Includes capillary fringe)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P( (LRR A) Other (Explain in Rem  Other (Explain in Rem  Depth (inches): Depth (inches):	B13) F (C1) s along Living  Iron (C4) in Tilled  Iants (D1) arks)  Wetland Hy	AA, and AB) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) al Imagery (C9) (LRR A) (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (E) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Ves Saturation Present? (includes capillary fringe) Yes	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P( (LRR A) Other (Explain in Rem  Other (Explain in Rem  Depth (inches): Depth (inches):	B13) F (C1) s along Living  Iron (C4) in Tilled  Iants (D1) arks)  Wetland Hy	AA, and AB) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) (C2) (Imagery (C9) (LRR A) (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (E) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (Includes capillary fringe)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P( (LRR A) Other (Explain in Rem  Other (Explain in Rem  Depth (inches): Depth (inches):	B13) F (C1) s along Living  Iron (C4) in Tilled  Iants (D1) arks)  Wetland Hy	AA, and AB) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) (c2) (c2) (c3) (c4) (c5) (c6) (c7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (ES) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe)  Describe Recorded Data (Stream gauge, mage)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem 37) (B8)  Depth (inches): Depth (inches): Depth (inches):	B13) F (C1) S along Living  Iron (C4) In Tilled  Iants (D1)  arks)  Wetland Hy  ous inspections), if available	AA, and AB) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) (C9) (C9) (C9) (C9) (C9) (C9) (C9) (C9
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (E) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (Includes capillary fringe)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem 37) (B8)  Depth (inches): Depth (inches): Depth (inches):	B13) F (C1) S along Living  Iron (C4) In Tilled  Iants (D1)  arks)  Wetland Hy  ous inspections), if available	AA, and AB) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) (C9) (C9) (C9) (C9) (C9) (C9) (C9) (C9
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (ES) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe)  Describe Recorded Data (Stream gauge, mage)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P( (LRR A) Other (Explain in Rem  Other (Explain in Rem  Depth (inches): Depth (inches):	B13) F (C1) S along Living  Iron (C4) In Tilled  Iants (D1)  arks)  Wetland Hy  ous inspections), if available	AA, and AB) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	(C2) (MLRA 1, 2, (C2) (c2) (c2) (c3) (c4) (c5) (c6) (c7)

^	Trestell	nountains, valleys, and Coast Region
Project/Site: Hart Kanch	city/County: Siskiyou C	Sampling Date: 8/23/2011
Applicant/Owner: Pto Vt Salaria	CAMADA CAMADA	
Investigator(s): Andrea Kabe	Section Township Borner	ling Point:
Landform (billsione terrace etc.):	Geolion, Township, Range:	DN185W Sect 1,2+3
Landform (hillslope, terrace, etc.):	Local relief (concave, conve	x, none): COn VCX Slope (%): 5
Subregion (LRR): MLRA 228	Lat: Long: 7/1	SOAB Datum: NAD 83
Soil Map Unit Name: 120 Ouile	Loan	NWI classification:
Are climatic / hydrologic conditions on the site typi	ical for this time of year? Yes X No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrolog	By No significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrolog	y No naturally problematic?	(if needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site	e man showing sampling noin	t locations, transects, important features, etc
	No Samping poin	t locations, transects, important features, etc
	No Is the Sampled Area w	ithin a Wetland? Yes No V
Wetland Hydrology Present? Yes	No 🔀	ithin a Wetland? Yes No
Remarks:		
	ditchbank	
VEGETATION - Use scientific names of	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Riot size:)	% Cover Species? Status	1
1.	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
2.		
3.		Total Number of Dominant Species Across All Strata: (B)
4		Species Across All Strata: (B) Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
		(700)
Parilla (O)	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence index worksheet:
1.		Total % Cover of: Multiply by:
2		OBL species x1 =
3.		FACW species x 2 =
5.		FAC species x3 =
	- Total Cours	FACU species x 4 =
lerb Stratum (Plot size: / mZ	= Total Cover	UPL species 60 x 5 = 300
POINTAILLEGE CORCALL ON	ho II no	Column Totals: 60 (A) (300 (B)
· LESTIGNICO SISTITIANS	00 4 OPC	
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
·	Figure 1 Table Special Control	1 - Rapid Test for Hydrophytic Vegetation
	he is explicitly in a	2 - Dominance Test is >50%
	3.50	3 - Prevalence Index is ≤3,01
	No.	
		4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
).		5 - Wetland Non-Vascular Plants ¹
	2 7- 9-145	
		Problematic Hydrophytic Vegetation ¹ (Explain)
lands Vina Charles (Disk	(at) = Total Cover	Indicators of hydric soil and wetland hydrology must
oody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
		Who the is
	2 1 2 20 A	p in the
11.	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum		Vegetation Present? Yes No
	]	Present? Yes No
emarks:		
a a como para.		
		1
		i e

SOIL	Saling lings against
Profile Description: (Describe to the de	pth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix (inches) Color (moist) %	Redox Features Color (moist) % Type Loc² Texture Remarks
0-11 2,5 4242 100	
	l Man
11-18 2548 95 100	
¹ Type: C=Concentration, D=Depletion, RN	M=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to a	3
Histosol (A1)	Sandy Redox (S5) 2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6) Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)  Loamy Gleved Matrix (F2) Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)  Depleted Matrix (F3)  Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Redox Dark Surface (F6)  3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic
Restrictive Layer (if present):	<b>✓</b>
**	Hydric Soil Present? Yes No
Depth (Inches):	
Remarks:	
	and a cottle
	noindicators
HYDROLOGY Wetland Hydrology Indicators:	
	d; check all that apply)  Water-Stained Leaves (B9) (except  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	t; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2)	t; check ail that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aduatic Invertebrates (B13)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Secondary Indicators (2 or more required)   Water-Stained Leaves (B9) (except   MLRA 1, 2, 4A, and 4B)   Salt Crust (B11)   Aquatic Invertebrates (B13)   Hydrogen Sulfide Odor (C1)   Oxidized Rhizospheres along Living   Secondary Indicators (2 or more required)   Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)   Drainage Patterns (B10)   Dry-Season Water Table (C2)   Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3)  Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6)  Stunted or Stressed Plants (D1)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1)  (LRR A)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Solls (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Solls (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Solls (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B7  Field Observations: Surface Water Present? Water Table Present? Yes No	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Depth (inches):
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B7  Field Observations: Surface Water Present? Water Table Present? Yes No	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Depth (inches): Depth (inches): Wetland Hydrology Present?  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (E  Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? (Includes capillary fringe)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (E  Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? (Includes capillary fringe)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)  Depth (inches): Depth (inches): Wetland Hydrology Present?  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B7  Field Observations: Surface Water Present? Yes No Saturation Present? (Includes capillary fringe) Yes No Describe Recorded Data (stream gauge, more	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (E  Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? (Includes capillary fringe)	Water-Stained Leaves (B9) (except  Water-Stained Leaves (B9) (except  Mi-RA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled  Solls (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Depth (inches):  Depth (inches):
Wetland Hydrology Indicators: Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B7  Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No Describe Recorded Data (stream gauge, more	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except  MRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes No

4 . 6		Mountains, Valleys, and Coast Region
Project/Site: Hart Kanch	City/County: Siski Van P	9. Sampling Date: 8/23/2016
Applicant/Owner: Hart Ranch Investigator(s): Anorta Ranch Landform (hillslope, terrace, etc.)	State: CA Same	Sampling Date: 0/25/2010
Investigator(s): Andrea Kabe	Section, Township, Range:	45N REW SOL 213
Landform (hillslope, terrace, etc.) 11/5 00	Local relief (concave, conv	2x, none): <u>Concare</u> Slope (%): 5
Subregion (LRR): MLRA 228	Lat. 122,381049 Long: 41 6	ex, none): CONCALAC Slope (%): 5
Soil Map Unit Name:	reloam	NWI classification:
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes X No	
	MY 1911 SIGDITICADTIV dietrithed? Are	"Name of the control
Are Vegetation, Soil, or Hydrold	99 <u>No</u> naturally problematic?	(If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes V	te map showing sampling poin	t locations, transects, important features, etc
I Hydric Soil Present?	A. ——	
Wetland Hydrology Present?	INU 1	
Remarks:		
ditch		
		<u>na arangan ar</u>
VEGETATION - Use scientific names	of plants	
330 Scientific Harries		
Tree Stratum (Plot size:)	Absolute Dominant Indicator <u>% Cover</u> Species? Status	
1.	% Cover Species? Status	Number of Dominant Species
2.		That Are OBL, FACW, or FAC:(A)
3.		Total Number of Dominant Species Across All Strata: (B)
4		Percent of Dominant Species (B)
		That Are OBL, FACW, or FAC:(A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x1 =
3.		FACW species x 2 =
		FAC species x3=
5		FACU species x4 =
lerb Stratum (Plot size: -11/7)	= Total Cover	UPL species x 5 =
(Piot size: PVV)	1	
		Prevalence Index = B/A =
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	the state of the s	2 - Dominance Test is >50%
	180 St. 12. 6	3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
0		5 - Wetland Non-Vascular Plants ¹
1	2. 4	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	
Voody Vine Stratum (Plot size:)	- Total Covel	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	}-	and problem and a distributed of problem auc.
	A Carryon	A MA
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum		Vegetation Present? Yes No
	set see	
emarks:	AN DO THE STATE OF	- Wasal
un veg 1	pen water marcha	What Beparse very point
110	Jos Mile We	WIN SUNS COM
	1 (YKDA)	(3)667. (11

SOIL				Second from the second	106
Profile Description: (Describe to the d	epth needed to documen	the indicator or	confirm the ab	sence of indicators.)	<u> </u>
Depth Matrix	Color (moist)	dox Features  "Type"	Loc ²	Texture	Remarks
(inches) Color (moist) %		76		Loam	
D-6 25. 42. 92 100			724	4	
618 2,5 YRVII 90	542416	<u> </u>	PC	sand	
			<del></del>		
					(b)
				<del></del>	
		7		2	
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, CS=C	overed or Coated	Sand Grains.	² Location: PL=Pore	
Hydric Soil Indicators: (Applicable to	all LiRRs, unless otherwi	se noted.)	Indic	ators for Problemat	c Hydric Soils³:
	Sandy Redox (S5)	-	2	cm Muck (A10)	
— Histosol (A1) Histic Epipedon (A2)	Stripped Matrix (S6	)	F	Red Parent Material (T	F2)
Black Histic (A3)	Loamy Mucky Mine	ral (F1) (except M	ILRA 1) 💹 🗎	ery Shallow Dark Sui	face (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Mate	rix (F2)	(	Other (Explain in Rem	arks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3	3)	,		dia vessiotion and
Thick Dark Surface (A12)	Redox Dark Surfac	e (F6)		Indicators of hydrophy wetland hydrology mus	ruc vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surf		,	inless disturbed or pro	blematic
Sandy Gleyed Matrix (S4)	Redox Depressions	(FD)		arriado diotas por pri	
Restrictive Layer (if present):				$\vee$	
		Hydric	Soil Present?	Yes	No
Type: Depth (Inches):					
Remarks:		<u> </u>			
HYDROLOGY			· · · · · · · · · · · · · · · · · · ·	·	
Wetland Hydrology Indicators:			Saaa	ndary Indicators (2 or	more required)
Primary Indicators (minimum of one requir	ed; check all that apply)	Leaves (B9) (exce		ater-Stained Leaves (	B9) (MLRA 1, 2,
<b>N</b>	water-Stained MLRA 1, 2, 4A			A, and 4B)	/(
Surface Water (A1)	Salt Crust (B11		D	rainage Patterns (B10	)
High Water Table (A2)  Saturation (A3)	Aquatic Inverte	brates (B13)	_ D	ry-Season Water Tabl	e (C2)
Water Marks (B1)	Hydrogen Sulfi	de Odor (C1)		aturation Visible on Ad	erial Imagery (C9)
		spheres along Liv	ring	eomorphic Position (D	12)
Sediment Deposits (B2)	Roots (C3)	od consideration (OA)	6	hallow Aquitard (D3)	,2,
Drift Deposits (B3)	Presence of Re	educed Iron (C4) eduction in Tilled		Hallow Addition a (Da)	
Al   Mad O (D4)	Soils (C6)	OUCLOST III THIEG		AC-Neutral Test (D5)	
Algal Mat or Crust (B4)	Stunted or Stre	essed Plants (D1)			
Iron Deposits (B5)	(LRR A)		R	aised Ant Mounds (D	6) (LRR A)
Surface Soil Cracks (B6)	Other (Explain	in Remarks)	-	rost-Heave Hummock	s (D7)
Inundation Visible on Aerial Imagery (f	5 <i>(</i> )				
Inundation Visible on Aerial Imagery (E Sparsely Vegetated Concave Surface	(B8)				
Inundation Visible on Aerial Imagery (f	(B8)		<u>.</u>		
Inundation Visible on Aerial Imagery (E Sparsely Vegetated Concave Surface Field Observations:	(B8) 	18:0	<u></u>	<u> </u>	_
Inundation Visible on Aerial Imagery (ESparsely Vegetated Concave Surface  Field Observations: Surface Water Present?  Yes	(B8)  No Depth (Inches):	18 n	Wetland Hydr	ology Present? Y	es × No
Inundation Visible on Aerial Imagery (ESparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present?  Yes Yes	(B8) 	<u>(8,n</u>	Wetland Hydr	ology Present? Y	es <u>X</u> No
Inundation Visible on Aerial Imagery (ESparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Saturation Present?	No Depth (Inches): Depth (inches):	<u>(8,n</u>	Wetland Hydr	ology Present? Y	es <u>X</u> No
Inundation Visible on Aerial Imagery (Images) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Yes	No Depth (Inches): No Depth (inches): No Depth (inches):				es X No
Inundation Visible on Aerial Imagery (Images of Sparsely Vegetated Concave Surface Surface Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes X	No Depth (Inches): No Depth (inches): No Depth (inches):				es <u>X</u> No
Inundation Visible on Aerial Imagery (ESparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Water Table Present? Saturation Present?	No Depth (Inches): No Depth (inches): No Depth (inches):				es <u>×</u> No
Inundation Visible on Aerial Imagery (Images of Sparsely Vegetated Concave Surface Surface Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes X	No Depth (Inches): No Depth (inches): No Depth (inches):				es <u>X</u> No
Inundation Visible on Aerial Imagery (if Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes Describe Recorded Data (stream gauge, m	No Depth (Inches): No Depth (inches): No Depth (inches):	(8) ns, previous inspec			es <u>X</u> No
Inundation Visible on Aerial Imagery (if Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes Describe Recorded Data (stream gauge, m.)	No Depth (Inches): No Depth (inches): No Depth (inches):	(8) ns, previous inspec			es <u>X</u> No

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No Are Vegetation Soil or Hydrology Significantly disturbed? Are "Norma Are Vegetation Soil or Hydrology No naturally problematic? Are "Norma Are Vegetation Present? Yes No Hydrology Present? Yes No No His the Sampled Area within a large of t	nt: DC N K5W Sect 1, 2 + 3 ): CONTAIN. Slope (%): Datum: NAN K3 lassification: V/A (If no, explain in Remarks.) I Circumstances" present? Yes X No
State: A Sampling Pol Investigator(s):   MAYOR   KOP   Section, Township, Range:   Landform (hillslope, terrace, etc.):   Mayor   Landform (hillslope, terrace, etc.):   Landform (hillslope, terrace, etc.):   Landform (hillslope, terrace, etc.):   Landform (hillslope, terrace, etc.):   Landform (hillslope, etc.):   Landform (hills	nt: DC N K5W Sect 1, 2 + 3 ): CONTAIN. Slope (%): Datum: NAN K3 lassification: V/A (If no, explain in Remarks.) I Circumstances" present? Yes X No
Section, Township, Range:   1.45   Section, Township, Range:   1.45   Section, Township, Range:   1.45   Subregion (LRR):   MLRA ZB   Latt   2.35   Latt	N, R5W Sect 1, 2 + 3 ): Concove Slope (%):  Datum: NAD 83  lassification: VA (If no, explain in Remarks.)  I Circumstances" present? Yes X No
Subregion (LRR): MLRA 2B Lat 123 3899 Long: Local relief (concave, convex, none Subregion (LRR): MLRA 2B Lat 123 3899 Long: Lat	Datum: NAN 63  leassification: VA (If no, explain in Remarks.)  I Circumstances" present? Yes X No
Soil Map Unit Name: 180   Dure   Dama   Stratum   NWI co   Are climated / hydrologic conditions on the site typical for this time of year? Yes   No   Are Vegetation   Soil   or Hydrology   No significantly disturbed?   Are "Norma   Are Vegetation   Soil   or Hydrology   No naturally problematic?   (If ne   SUMMARY OF FINDINGS - Attach site map showing sampling point local   Hydrophytic Vegetation Present?   Yes   No   Hydrology Present?   Yes   No   Wetland Hydrology Present?   Yes   No   Wetland Hydrology Present?   Yes   No   Wetland Hydrology Present?   Yes   No   Number   No    VEGETATION - Use scientific names of plants.  VEGETATION - VEGETATION - VEGETATION - VEGETATION - VEGETATION - VEGETATION -	lassification:  (If no, explain in Remarks.)  I Circumstances" present? Yes X No
Soil Map Unit Name: 180   Dure   Dama   Stratum   NWI co   Are climated / hydrologic conditions on the site typical for this time of year? Yes   No   Are Vegetation   Soil   or Hydrology   No significantly disturbed?   Are "Norma   Are Vegetation   Soil   or Hydrology   No naturally problematic?   (If ne   SUMMARY OF FINDINGS - Attach site map showing sampling point local   Hydrophytic Vegetation Present?   Yes   No   Hydrology Present?   Yes   No   Wetland Hydrology Present?   Yes   No   Wetland Hydrology Present?   Yes   No   Wetland Hydrology Present?   Yes   No   Number   No    VEGETATION - Use scientific names of plants.  VEGETATION - VEGETATION - VEGETATION - VEGETATION - VEGETATION - VEGETATION -	lassification:  (If no, explain in Remarks.)  I Circumstances" present? Yes X No
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No Are Vegetation , Soil , or Hydrology \( \frac{N}{2} \) significantly disturbed? Are "Norma Are Vegetation , Soil , or Hydrology \( \frac{N}{2} \) is significantly disturbed? Are "Norma Are Vegetation   Soil , or Hydrology \( \frac{N}{2} \) in aturally problematic? (If ne SUMMARY OF FINDINGS - Attach site map showing sampling point local Hydrophytic Vegetation Present? Yes No No Hydrology Present? Yes No	lassification:  (If no, explain in Remarks.)  I Circumstances" present? Yes X No
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Are Vegetation Soil or Hydrology NO naturally problematic? Are Norma Are Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No Hydrocogy Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No No His the Sampled Area within a Wetland Hydrology Present? Yes No No	! Circumstances" present? Yes X No
SUMMARY OF FINDINGS - Attach site map showing sampling point local Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No	
SUMMARY OF FINDINGS – Attach site map showing sampling point local Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present Hydrology Pr	eded, explain any answers in Remarks.)
Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Present?  VEGETATION — Use scientific names of plants.  Tree Stratum (Plot size:  1. 2. 3. 4.  Sapling/Shrub Stratum Plot size:  1. 2. 3. 4. 5.  Herb Stratum (Plot size:  1. 2. 3. 4.  Herb Stratum (Plot size:  1. 2. 3. 4.  Herb Stratum (Plot size:  1. 2. 3. 4. 5.  Herb Stratum (Plot size:  1. 2. 3. 4. 5.  Herb Stratum (Plot size:  1. 2. 3. 4. 5. 4. 5.  Herb Stratum (Plot size:  1. 2. 3. 4. 5. 5.  Herb Stratum (Plot size:  1. 2. 3. 4. 5. 5. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	·
Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Present?  VEGETATION — Use scientific names of plants.  Tree Stratum (Plot size:  1. 2. 3. 4.  Sapling/Shrub Stratum Plot size:  1. 2. 3. 4. 5.  Herb Stratum (Plot size:  1. 2. 3. 4.  Herb Stratum (Plot size:  1. 2. 3. 4.  Herb Stratum (Plot size:  1. 2. 3. 4. 5.  Herb Stratum (Plot size:  1. 2. 3. 4. 5.  Herb Stratum (Plot size:  1. 2. 3. 4. 5. 4. 5.  Herb Stratum (Plot size:  1. 2. 3. 4. 5. 5.  Herb Stratum (Plot size:  1. 2. 3. 4. 5. 5. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	lions, transects, important features, et
Wetland Hydrology Present?  Remarks:  VEGETATION — Use scientific names of plants.  Iree Stratum (Plot size: ) Absolute % Cover Species? Status Thus 1.  2. 3. 4. ————————————————————————————————	
VEGETATION - Use scientific names of plants.   Tree Stratum (Plot size: )	Wetland? Yes No
VEGETATION - Use scientific names of plants.  Tree Stratum (Plot size: ) Absolute Species? Status Number 1. 2. 3.	
VEGETATION - Use scientific names of plants.  Tree Stratum (Plot size: )	
VEGETATION - Use scientific names of plants.  Tree Stratum (Plot size: )	
Absolute Dominant Indicator % Cover Species? Status  1.	
Absolute Oominant Indicator Species? Status  1.	
Plot size:	
1. 2. 3. 4. Total Cover Pre The Sapling/Shrub Stratum (Plot size: ) 1. Total Cover Pre The Total Cover Pre The Total Cover Pre Total Cover Pre Total Cover Pre Total Cover Pre Total Cover Prev Prev Prev Prev Prev Prev Prev P	minance Test worksheet:
2.	mber of Dominant Species
Sapling/Shrub Stratum Plot size:    Total Cover	at Are OBL, FACW, or FAC: (A)
Sapling/Shrub Stratum  Protection  Sapling/Shrub Stratum  Plot size:    Total Cover   Protection   Total Cover   Protection   Protectio	al Number of Dominant
Sapling/Shrub Stratum Plot size:    Total Cover	ecies Across All Strata: (B)
Sapling/Shrub Stratum Plot size:    Total Cover	cent of Dominant Species
Sapling/Shrub Stratum (Plot size:	at Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:	
Total Cover  Rerb Stratum (Plot size: M 2) = Total Cover  Prev  Hydright	valence Index worksheet:
OBI  FAC  FAC  FAC  FAC  FAC  FAC  FAC  FA	
FAC  FAC  FAC  FAC  FAC  FAC  FAC  UPL  Columnation Substitution 30 4 pp.  Prev  Hydr  1 2 3 4 da 5	al % Cover of: Multiply by:
FAC    FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC   FAC	species x1 =
Early Stratum (Plot size:   M 2   Previous	W species x 2 =
lerb Stratum (Plot size:   //) 2	species x 3 =
Columbia	U species x 4 =
Columbia (Plot size:)	species $\cancel{b0} \times 5 = \cancel{200}$
Previous	7.4 5000
Hydrical Stratum (Plot size: )  Hydrical 1 2 3 4 4 6 5 Pr 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1	mn Totals:(A)(B)
Hydrical Stratum (Plot size: )  Hydrical 1 2 3 4 4 6 7 7 8 7 8 7 9 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1	alence index = B/A =
1 2 2 3 3 4 de	
2 3 3 4 da	ophytic Vegetation Indicators:
2 3 4 da	
3 4 da 5 Pr 200 = Total Cover  1tndic be pre	- Rapid Test for Hydrophytic Vegetation
da d	- Dominance Test is >50%
da	- Prevalence Index is ≤3.01
5	- Morphological Adaptations ¹ (Provide supporting
Proody Vine Stratum (Plot size: ) = Total Cover thindic be pre	ata in Remarks or on a separate sheet)
cody Vine Stratum (Plot size: ) = Total Cover the pre	- Wetland Non-Vascular Plants ¹
be pre	oblematic Hydrophytic Vegetation ¹ (Explain)
be pre	ators of hydric soil and wetland hydrology must
	esent, unless disturbed or problematic.
	( )
the state of the s	
I the adve	phytic
Bare Ground in Herb Stratum (1)	
Prese	nt? Yes No
marks:	
IIIdikā,	I

SOIL							કુટો (i) વાર્ષિક નિ	
Profile Desc	ription: (Describe to	the depth	needed to docu	ment the ind	icator or con	firm the a	bsence of Indicator	s.)
Depth	Matrix			Redox Feat	ures	Loc²	Texture	Remarks
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type	LUC	- 2	
0-10	2.5 426/3						<u>loan</u>	<i></i>
10-18	2542613	100					Look	71
		-						
		-	<del></del>			<del></del>		
¹Tyne: C=C	oncentration, D=Deple	tion, RM=Re	educed Matrix, C	S=Covered o	r Coated San	d Grains.	² Location: PL=Po	re Lining, M=Matrix.
			<del></del>				icators for Problem	atic Hydric Soils ³ :
=	Indicators: (Applica	able to all Li			1.)		2 cm Muck (A10)	and try and a series
Histoso		-	Sandy Redox ( Stripped Matrix	S5) (CB)			Red Parent Material	(TF2)
	pipedon (A2) listic (A3)		Loamy Mucky I	(30) Mineral (F1) (	except MLR/	A 1) —	Very Shallow Dark S	Surface (TF12)
	en Sulfide (A4)		Loamy Gleyed	Matrix (F2)	•	_	Other (Explain in Re	emarks)
	d Below Dark Surface	(A11)	Depleted Matri	x (F3)			3	- Ludius and allow model
Thick D	ark Surface (A12)	_	Redox Dark Su	Irface (F6)			"Indicators of hydrol wetland hydrology n	ohytic vegetation and
	Mucky Mineral (S1)		Depleted Dark Redox Depress	Surface (F7)			unless disturbed or	problematic
Sandy	Gleyed Matrix (S4)		Nedox Bepress	310110 (1 0)	<u> </u>		···	<u> </u>
Restrictive La	yer (if present):							1/
Type:					Hydric Soil	Present?	Yes	No
Depth (inc	hes):							
Remarks:							<del></del>	
					_			
			100	1	1			
<u></u>			(11)	INVALA	MOON			
		<del></del>	170	maid	aross			
HYDROLOG			170	marc	aross	<u></u>		
HYDROLOG Wetland Hydi	rology Indicators:				<u>arovš</u>			and any and any and any and any
Wetland Hvdi	SY rology Indicators: ators (minimum of one	required; ch	eck all that apply	()		Seco	ndary Indicators (2 o	or more required)
Wetland Hydi Primary Indica	rology Indicators: ators (minimum of one	required; ch	eck all that apply Water-Stair	/) ned Leaves (l	B9) (except	Seco V	Vater-Stained Leaves	or more required) s (B9) (MLRA 1, 2,
Wetland Hydi Primary Indica Surface W	rology Indicators: ators (minimum of one ater (A1)	required; ch	eck all that apply Water-Stail	/) ned Leaves (I	B9) (except	Seco V	Vater-Stained Leaver <b>A, and 4B</b> ) Prainage Patterns (B	s (B9) ( <b>MLRA 1, 2,</b> 10)
Wetland Hydi Primary Indica Surface Water High Water	rology Indicators: ators (minimum of one ater (A1) r Table (A2)	required; ch	water-Stair MLRA 1, 2 Salt Crust	/) ned Leaves ( , 4A, and 4B (B11) rertebrates (B	B9) (except )	Seco V	Vater-Stained Leaver A, and 4B) Irainage Patterns (B Iry-Season Water Ta	s (B9) ( <b>MLRA 1, 2,</b> 10) able (C2)
Wetland Hydi Primary Indica Surface W	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3)	required; ch	water-Stain MLRA 1, 2 Salt Crust Aquatic Inv	ned Leaves (i , 4A, and 4B (B11) rertebrates (B Sulfide Odor	B9) (except ) (13) (C1)	Seco V	Vater-Stained Leaver <b>A, and 4B</b> ) Prainage Patterns (B	s (B9) ( <b>MLRA 1, 2,</b> 10) able (C2)
Wetland Hyde Primary Indica Surface W. High Wate Saturation Water Mark	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1)	required; ch	water-Stain MLRA 1, 2 Salt Crust in Aquatic Inv Hydrogen S Oxidized R	ned Leaves (i , 4A, and 4B (B11) rertebrates (B Sulfide Odor hizospheres	B9) (except ) (13) (C1)	Seco V 4	Vater-Stained Leaver A, and 4B) Prainage Patterns (Book) Prays Season Water Tale Prays Staturation Visible on	s (B9) ( <b>MLRA 1, 2,</b> 10) able (C2) Aerial Imagery (C9)
Wetland Hydi Primary Indica Surface W. High Water Saturation Water Mart	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2)	required; ch	water-Stain MLRA 1, 2 Salt Crust ( Aquatic Inv Hydrogen 3 Oxidized R Roots (C3)	ned Leaves ( , 4A, and 4B (B11) ertebrates (B Sulfide Odor hizospheres	B9) (except ) 113) (C1) along Living	Seco V	Vater-Stained Leaver A, and 4B) Irainage Patterns (B Iry-Season Water Ta	8 (B9) ( <b>MLRA 1, 2,</b> 10) able (C2) Aerial Imagery (C9) (D2)
Wetland Hyde Primary Indica Surface We High Water Saturation Water Mark	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2)	required; ch	water-Stair MLRA 1, 2 Salt Crust Aquatic Inv Hydrogen 3 Oxidized R Roots (C3)	ned Leaves (i , 4A, and 4B (B11) rertebrates (B Sulfide Odor hizospheres	B9) (except ) (13) (C1) along Living on (C4)	Seco V 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Vater-Stained Leaver A, and 4B) Prainage Patterns (Bi Pry-Season Water Tale Esturation Visible on Geomorphic Position Shallow Aquitard (D3)	8 (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2)
Wetland Hydi Primary Indica  Surface W. High Water Saturation Water Mart  Sediment I Drift Depos	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2)	required; ch	water-Stain MLRA 1, 2 Salt Crust ( Aquatic Inv Hydrogen ( Oxidized R Roots (C3) Presence ( Recent Iron Soils (C6)	ned Leaves (in the state of the	B9) (except ) (13) (C1) along Living on (C4) n Tilled	Seco V 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Vater-Stained Leaver A, and 4B) Prainage Patterns (Bi Pry-Season Water Tale Eaturation Visible on Geomorphic Position	8 (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2)
Wetland Hydi Primary Indica Surface W. High Wate Saturation Water Mart Sediment I Drift Depos	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4)	required; ch	water-Stain MLRA 1, 2 Salt Crust ( Aquatic Inv Hydrogen 3 Oxidized R Roots (C3) Presence ( Recent Iron Soils (C6) Stunted or	ned Leaves (I , 4A, and 4B (B11) rertebrates (B Sulfide Odor hizospheres	B9) (except ) (13) (C1) along Living on (C4) n Tilled	Seco V 4	Vater-Stained Leaver A, and 4B) Prainage Patterns (Bi Pry-Season Water Tale Esturation Visible on Beomorphic Position Bhallow Aquitard (D3) AC-Neutral Test (D5)	(B9) (MLRA 1, 2, 10)  Able (C2)  Aerial Imagery (C9)  (D2)  )
Wetland Hydi Primary Indica Surface Wi High Wate Saturation Water Mari Sediment I Drift Depos Algal Mat of	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4)	required; ch	water-Stain MLRA 1, 2 Salt Crust ( Aquatic Inv Hydrogen 3 Oxidized R Roots (C3) Presence ( Recent Iron Soils (C6) Stunted or (LRR A)	ned Leaves (I , 4A, and 4B (B11) rertebrates (B Sulfide Odor I hizospheres of Reduced In n Reduction I Stressed Pla	B9) (except ) 313) (C1) along Living on (C4) n Tilled ants (D1)	Seco V 4	Vater-Stained Leaver A, and 4B) Irainage Patterns (Bi Iry-Season Water Taliaturation Visible on Geomorphic Position Inallow Aquitard (D3 FAC-Neutral Test (D5) Raised Ant Mounds (	8 (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5)
Wetland Hydi Primary Indica  Surface Wi High Wate Saturation Water Mari  Sediment I Drift Depos  Algal Mat of Iron Depos Surface So	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6)		water-Stain MLRA 1, 2 Salt Crust ( Aquatic Inv Hydrogen 3 Oxidized R Roots (C3) Presence ( Recent Iron Soils (C6) Stunted or (LRR A)	ned Leaves (in the state of the	B9) (except ) 313) (C1) along Living on (C4) n Tilled ants (D1)	Seco V 4	Vater-Stained Leaver A, and 4B) Prainage Patterns (Bi Pry-Season Water Tale Esturation Visible on Beomorphic Position Bhallow Aquitard (D3) AC-Neutral Test (D5)	8 (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5)
Wetland Hydi Primary Indica  Surface Will High Water Saturation Water Mart  Sediment I Drift Depos  Algal Mat of Iron Depos Surface So Inundation	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) o Visible on Aerial Imag	gery (B7)	water-Stain MLRA 1, 2 Salt Crust ( Aquatic Inv Hydrogen 3 Oxidized R Roots (C3) Presence ( Recent Iron Soils (C6) Stunted or (LRR A)	ned Leaves (I , 4A, and 4B (B11) rertebrates (B Sulfide Odor I hizospheres of Reduced In n Reduction I Stressed Pla	B9) (except ) 313) (C1) along Living on (C4) n Tilled ants (D1)	Seco V 4	Vater-Stained Leaver A, and 4B) Irainage Patterns (Bi Iry-Season Water Taliaturation Visible on Geomorphic Position Inallow Aquitard (D3 FAC-Neutral Test (D5) Raised Ant Mounds (	8 (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5)
Wetland Hydi Primary Indica  Surface Will High Water Saturation Water Mart  Sediment I Drift Depos  Algal Mat of Iron Depos Surface So Inundation	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6)	gery (B7)	water-Stain MLRA 1, 2 Salt Crust ( Aquatic Inv Hydrogen 3 Oxidized R Roots (C3) Presence ( Recent Iron Soils (C6) Stunted or (LRR A)	ned Leaves (I , 4A, and 4B (B11) rertebrates (B Sulfide Odor I hizospheres of Reduced In n Reduction I Stressed Pla	B9) (except ) 313) (C1) along Living on (C4) n Tilled ants (D1)	Seco V 4	Vater-Stained Leaver A, and 4B) Irainage Patterns (Bi Iry-Season Water Taliaturation Visible on Geomorphic Position Inallow Aquitard (D3 FAC-Neutral Test (D5) Raised Ant Mounds (	8 (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5)
Wetland Hydi Primary Indica  Surface Wi High Wate Saturation Water Mari  Sediment I Drift Depos  Algal Mat of iron Depos Surface So inundation Sparsely V	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) o Visible on Aerial Image/egetated Concave Su	gery (B7) urface (B8)	Water-Stain MLRA 1, 2 Salt Crust ( Aquatic Inv Hydrogen 3 Oxidized R Roots (C3) Presence of Recent [C6] Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (I , 4A, and 4B (B11) rertebrates (B Sulfide Odor hizospheres of Reduced In n Reduction i Stressed Pla	B9) (except ) 313) (C1) along Living on (C4) n Tilled ants (D1)	Seco V 4	Vater-Stained Leaver A, and 4B) Irainage Patterns (Bi Iry-Season Water Taliaturation Visible on Geomorphic Position Inallow Aquitard (D3 FAC-Neutral Test (D5) Raised Ant Mounds (	8 (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5)
Wetland Hydi Primary Indica  Surface Wi High Water Saturation Water Mart  Sediment I Drift Depos  Algal Mat of Iron Depos Surface So Inundation Sparsely V  Field Observ Surface Water	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) o Visible on Aerial Image/egetated Concave Su rations: ar Present? Yes	gery (B7) urface (B8)	water-Stain MLRA 1, 2 Salt Crust Aquatic Inv Hydrogen 3 Oxidized R Roots (C3) Presence of Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (I, 4A, and 4B (B11) rertebrates (B Sulfide Odor II) hizospheres of Reduced Ir n Reduction II Stressed Pla lain in Rema	B9) (except ) s13) (C1) along Living on (C4) n Tilled ints (D1) rks)	Seco V 4	Vater-Stained Leaver A, and 4B) Prainage Patterns (Biny-Season Water Tailaturation Visible on Beomorphic Position Hallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummo	8 (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5)
Wetland Hydi Primary Indica  Surface Wi High Water Saturation Water Mari  Sediment I Drift Depos  Algal Mat of iron Depos Surface So inundation Sparsely V  Field Observ Surface Water Water Table F	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) o Visible on Aerial Image/egetated Concave Su rations: or Present? Present? Yes	gery (B7) urface (B8)	Water-Stain MLRA 1, 2 Salt Crust ( Aquatic Inv Hydrogen 3 Oxidized R Roots (C3) Presence of Recent [C6] Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (I, 4A, and 4B (B11) rertebrates (B Sulfide Odor II) hizospheres of Reduced Ir n Reduction II Stressed Pla lain in Rema	B9) (except ) s13) (C1) along Living on (C4) n Tilled ints (D1) rks)	Seco V 4	Vater-Stained Leaver A, and 4B) Irainage Patterns (Bi Iry-Season Water Taliaturation Visible on Geomorphic Position Inallow Aquitard (D3 FAC-Neutral Test (D5) Raised Ant Mounds (	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5) D6) (LRR A) cks (D7)
Wetland Hydi Primary Indica  Surface William Water Mari  Sediment I Drift Deposition Deposition Surface Scient Inundation Sparsely Villiam Surface Water Table F Saturation Provinciudes capital Indicators Includes Capital Indicators Indica	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) o Visible on Aerial Imag /egetated Concave Su /attons: or Present? Present? Yes esent? illary fringe) Yes	gery (B7) urface (B8)	water-Stain MLRA 1, 2 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Roots (C3) Presence of Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (I, 4A, and 4B (B11) rertebrates (B Sulfide Odor hizospheres of Reduced Ir n Reduction in Stressed Platain in Remails. s):	B9) (except ) 313) (C1) along Living on (C4) n Tilled ints (D1) rks)  Wei	Second V	Vater-Stained Leaver A, and 4B) Prainage Patterns (Biter) Pray-Season Water Tailaturation Visible on Secomorphic Position Shallow Aquitard (D3 AC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummo	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5) D6) (LRR A) cks (D7)
Wetland Hydi Primary Indica  Surface Will High Water Saturation Water Mari Sediment I Drift Depos Algal Mat of iron Depos Surface So inundation Sparsely Vill Field Observ Surface Water Water Table F Saturation Pro (includes capi	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) o Visible on Aerial Imag /egetated Concave Su /attons: or Present? Present? Yes esent? illary fringe) Yes	gery (B7) urface (B8)	water-Stain MLRA 1, 2 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Roots (C3) Presence of Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (I, 4A, and 4B (B11) rertebrates (B Sulfide Odor hizospheres of Reduced Ir n Reduction in Stressed Platain in Remails. s):	B9) (except ) 313) (C1) along Living on (C4) n Tilled ints (D1) rks)  Wei	Second V	Vater-Stained Leaver A, and 4B) Prainage Patterns (Biter) Pray-Season Water Tailaturation Visible on Secomorphic Position Shallow Aquitard (D3 AC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummo	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5) D6) (LRR A) cks (D7)
Wetland Hydi Primary Indica  Surface Wi High Water Saturation Water Mari  Sediment I Drift Depos  Algal Mat of iron Depos Surface So inundation Sparsely Vi Field Observ Surface Water Water Table F Saturation Pro (includes capi	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) oil Visible on Aerial Image/egetated Concave Sulvations: ar Present? Present? Yes esent?	gery (B7) urface (B8)	water-Stain MLRA 1, 2 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Roots (C3) Presence of Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (I, 4A, and 4B (B11) rertebrates (B Sulfide Odor hizospheres of Reduced Ir n Reduction in Stressed Platain in Remails. s):	B9) (except ) 313) (C1) along Living on (C4) n Tilled ints (D1) rks)  Wei	Second V	Vater-Stained Leaver A, and 4B) Prainage Patterns (Biter) Pray-Season Water Tailaturation Visible on Secomorphic Position Shallow Aquitard (D3 AC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummo	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5) D6) (LRR A) cks (D7)
Wetland Hydi Primary Indica  Surface Will High Water Saturation Water Mari Sediment I Drift Depos Algal Mat of iron Depos Surface So inundation Sparsely Vill Field Observ Surface Water Water Table F Saturation Pro (includes capi	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) o Visible on Aerial Imag /egetated Concave Su /attons: or Present? Present? Yes esent? illary fringe) Yes	gery (B7) urface (B8)	water-Stain MLRA 1, 2 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Roots (C3) Presence of Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (I, 4A, and 4B (B11) rertebrates (B Sulfide Odor hizospheres of Reduced Ir n Reduction in Stressed Platain in Remails. s):	B9) (except ) 313) (C1) along Living on (C4) n Tilled ints (D1) rks)  Wei	Second V	Vater-Stained Leaver A, and 4B) Prainage Patterns (Biter) Pray-Season Water Tailaturation Visible on Secomorphic Position Shallow Aquitard (D3 AC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummo	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5) D6) (LRR A) cks (D7)
Wetland Hydi Primary Indica  Surface Will High Water Saturation Water Mari Sediment I Drift Depos Algal Mat of iron Depos Surface So inundation Sparsely Vill Field Observ Surface Water Water Table F Saturation Pro (includes capi	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) o Visible on Aerial Imag /egetated Concave Su /attons: or Present? Present? Yes esent? illary fringe) Yes	gery (B7) urface (B8)	water-Stain MLRA 1, 2 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Roots (C3) Presence of Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (in 4A, and 4B (B11) rertebrates (B Sulfide Odor in Reduced Ir in Reduction in Stressed Plate Ir in Remains in	B9) (except ) (C1) along Living on (C4) n Tilled ints (D1) rks)  Wei	Second V	Vater-Stained Leaver A, and 4B) Prainage Patterns (Bi Pry-Season Water Tailaturation Visible on Beomorphic Position Brailiow Aquitard (D3 Braised Ant Mounds (Brost-Heave Hummo Brology Present?  Prology Present?	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5) D6) (LRR A) cks (D7)
Wetland Hydi Primary Indica  Surface Wi High Wate Saturation Water Mari  Sediment I Drift Depos  Algal Mat of Iron Depos Surface So Inundation Sparsely V  Field Observ Surface Wate Water Table F Saturation Pro (includes capi Describe Recon	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) o Visible on Aerial Imag /egetated Concave Su /attons: or Present? Present? Yes esent? illary fringe) Yes	gery (B7) urface (B8)	water-Stain MLRA 1, 2 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Roots (C3) Presence of Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (in 4A, and 4B (B11) rertebrates (B Sulfide Odor in Reduced Ir in Reduction in Stressed Plate Ir in Remains in	B9) (except ) (C1) along Living on (C4) n Tilled ints (D1) rks)  Wei	Second V	Vater-Stained Leaver A, and 4B) Prainage Patterns (Biter) Pray-Season Water Tailaturation Visible on Secomorphic Position Shallow Aquitard (D3 AC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummo	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5) D6) (LRR A) cks (D7)
Wetland Hydi Primary Indica  Surface Wi High Wate Saturation Water Mari  Sediment I Drift Depos  Algal Mat of Iron Depos Surface So Inundation Sparsely V  Field Observ Surface Wate Water Table F Saturation Pro (includes capi Describe Recon	rology Indicators: ators (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) o Visible on Aerial Imag /egetated Concave Su /attons: or Present? Present? Yes esent? illary fringe) Yes	gery (B7) urface (B8)	water-Stain MLRA 1, 2 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Roots (C3) Presence of Recent Iron Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (in 4A, and 4B (B11) rertebrates (B Sulfide Odor in Reduced Ir in Reduction in Stressed Plate Ir in Remains in	B9) (except ) (C1) along Living on (C4) n Tilled ints (D1) rks)  Wei	Second V	Vater-Stained Leaver A, and 4B) Prainage Patterns (Bi Pry-Season Water Tailaturation Visible on Beomorphic Position Brailiow Aquitard (D3 Braised Ant Mounds (Brost-Heave Hummo Brology Present?  Prology Present?	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2) ) 5) D6) (LRR A) cks (D7)

Applicant/Owner: Investigator(s):  Landform (hillslope, terrace, etc.):  Subregion (LRR):  MLRA 22B  Soil Map Unit Name:  Are climatic / hydrologic conditions on the site typ  Are Vegetation  Are Vegetation  Soil  Or Hydrologic  SUMMARY OF FINDINGS — Attach site  Hydrophytic Vegetation Present?  Yes  Hydric Soil Present?	Local relief (concave, convey Lat. D. 37667 Long: 1.68 Local for this time of year? Yes X No significantly disturbed? Are 100 No naturally problematic?	Ing Point:  K. N. Sect 1, 2 + 3  K. none): Slope (%): Slope (%): NAN 63  NWI classification: PEINC  (If no, explain in Remarks.)  Normal Circumstances" present? Yes X No  (If needed, explain any answers in Remarks.)  Locations, transects, important features, et
ditch	bank	
Tree Stratum (Piot size:)  1 2 3 4.	Absolute Dominant Indicator <u>Cover Species? Status</u>	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)
Sapling/Shrub Stratum (Plot size:)  1	= Total Cover  = Total Cover  = Total Cover  QO Y BACU  Y UPL	Prevalence Index worksheet:  Total % Cover of: Multiply by:  OBL species
0. 1. /oody Vine Stratum (Plot size:)	= Total Cover	Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)  5 - Wetland Non-Vascular Plants¹  Problematic Hydrophytic Vegetation¹ (Explain)  ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No

SOIL	Sangling Palali
Profile Description: (Describe to the	depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix	Redox Features
(inches) Color (moist) %	
0-18 2,5 ye 4/2-10	clay loan
¹ Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to	o all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5) 2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6) Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)  Other (Explain in Remarks)
Depleted Below Dark Surface (A11 Thick Dark Surface (A12)	) Depleted Matrix (F3)  Redox Dark Surface (F6)  3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic
Restrictive Layer (If present):	Hydric Soil Present? Yes No
Type:	Hydric Soil Present? Yes No
Depth (inches):	
Remarks:	
· · · · ·	t e
	No. 11 and 1
NO 1	ndicators
NO 1	ndicators
HYDROLOGY	ndicators
HYDROLOGY Wetland Hydrology Indicators:	
HYDROLOGY	red; check all that apply)  Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one require	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1. 2. 4A, and 4B)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1. 2,  4A, and 4B)
HYDROLOGY Wetland Hydrology Indicators:	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements)  Surface Water (A1)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required of the control of the cont	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required of the control of the cont	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required of the control of the cont	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one sequence)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required of the control of the cont	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one sequence)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shatlow Aquitard (D3)  FAC-Neutral Test (D5)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one sequence)  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)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living  Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled  Solls (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one sequence)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)  (LRR A) Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2) Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)  (LRR A) Other (Explain in Remarks)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Incomplete Sparsely Vegetated Concave Surface	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)  (LRR A) Other (Explain in Remarks)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain In Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one sequence)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Incomplete on Sparsely Vegetated Concave Surface)  Field Observations: Surface Water Present?  Yes	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  Roots (D7)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  Sediment Deposits (B2) Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Image) Sparsely Vegetated Concave Surface  Field Observations: Surface Water Present?  Yes	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living  Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled  Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one required of the primary Indicators (minimum of one required of the primary Indicators (minimum of one required of the primary Indicators (Management of the primary Indicat	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  No Depth (inches):  Wetland Hydrology Present? Yes No No Depth (inches):
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one required of the primary Indicators (minimum of one required of the primary Indicators (minimum of one required of the primary Indicators (Management of the primary Indicat	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled  Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain In Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Drainage Patterns (B10)  Drainage Patterns (B10)  Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  No Depth (inches):  Wetland Hydrology Present? Yes No
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one required of the primary Indicators (minimum of one required of the primary Indicators (minimum of one required of the primary Indicators (Management of the primary Indicat	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  No Depth (inches):  Wetland Hydrology Present? Yes No No Depth (inches):
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one sequence)  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 Soli Cracks (B6) Inundation Visible on Aerial Imagery (Includes Capillary fringe)  Field Observations: Surface Water Present? Yes Saturation Present? (Includes capillary fringe) Yes Describe Recorded Data (stream gauge, minimum sequence)	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  No Depth (inches):  Wetland Hydrology Present? Yes No No Depth (inches):
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one required of the primary Indicators (minimum of one required on required one required one required on required one required on required one required one required on required one required one required on required one required on required one required one required on required one required on required one required one required on required one requ	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  No Depth (inches):  Wetland Hydrology Present? Yes No No Depth (inches):
HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one required one sequence)  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 Soli Cracks (B6) Inundation Visible on Aerial Imagery (Includes Capillary Fresent? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream gauge, minimum of one required	red; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1)  (LRR A)  Other (Explain in Remarks)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)  No Depth (inches):  Wetland Hydrology Present? Yes No No Depth (inches):

VIETZARD DETERMINA	MION DATA FURM - Western N	fountains, Valleys, and Coast Region
Project/Site: Hart Ranch Applicant/Owner: Hart Ranch	city/county: Siskiyou Co	Sampling Date: 8/23/2016
Investigator(s):	State: (A Sampl	ing Point: 150 Sect 1 2 + 3
landform (hillsione terrace etc.)	Section, Township, Range:	75N, K5W Sect 1,2+3
Landform (hillslope, terrace, etc.): tcra Subregion (LRR): MLRA 22B	Local reflet (concave, conver	x, none): NOY Slope (%):
Soil Map Unit Name: 189 Mech		Datum: NAN 63
Are climatic / hydrologic conditions on the site typ	pical for this time of years Year	NWI classification: PEML
Are Vegetation Soil or Hydrolo	av No significantly disturbed?	(if no, explain in Remarks.) "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydroto	gy NO naturally problematic?	No
		(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	te map showing sampling point	locations, transects, important features, etc
i i jai a la l	110	
Hydric Soil Present? Wetland Hydrology Present? Yes Yes	No Is the Sampled Area wi	thin a Wetland? Yes X No
Remarks:	1	
	Vit-da	
	31, 61	
VEGETATION - Use scientific names	of plante	
. Out out time hames		
Tree Stratum (Plot size:)	Absolute Dominant Indicator <u>% Cover Species? Status</u>	Dominance Test worksheet:
1,	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2.		Total Number of Dominant
2. 3. 4.		Species Across All Strata: (B)
4.		Percent of Dominant Species
177		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapiing/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		_Total % Cover of: Multiply by:
2. 3. 4.		OBL species x 1 =
3.		FACW species x2=
4		FAC species x3 =
5.		
· 1	= Total Cover	
lerb Stratum (Plot size: \m2)		7.3
		Column Totals: (A) (B)
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	- 42 / 1 / 1 / 24-29	1 - Rapid Test for Hydrophytic Vegetation
	So sa terrorió do a	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations (Provide supporting
0.		data in Remarks or on a separate sheet)
o 1.		5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation¹ (Explain)
/oody Vine Stratum (Plot size:	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic,
( )	<u> </u>	so prosent, unless disturbed of problematic,
	A CONTRACT	を
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum	- rotal Cover	Vegetation
	WY will h	Present? Yes No No
emarks:	e Total Cover	A MA
nA Mi	out and	on the man was the party of party
na veg vi	A OF WAR WIND	AND TIDO
liv J	数1000	
	T PXY V	The state of the s

HL							ইয়ার গুলিক ইপ্রায়	1
Profile Desc	ription: (Describe t	o the dept	h needed to docur	nent the indi-	cator or co	nfirm the a	bsence of indicators.)	
Depth	Matrix			Redox Featu	res			_
(inches)	Color (moist)	%	Color (moist)	%	Type¹_	Loc ²	Texture	Remarks
	SELEVIE	90	EVAVL	10		M	Com destant	
-18'in	25484/2	90	5 YR 4/6	10		15	Sandy loan	
							•	
						-		
~~~		-						
							2	. A d-A d-A-by
¹ Type: C=Co	ncentration, D=Depl	etion, RM=	Reduced Matrix, CS	3≃Covered or	Coated Sar	nd Grains.	² Location: PL=Pore Lining	, IVI=IVIALITIX.
		14 411	LDDloop office		`	Inc	licators for Problematic Hyd	tric Soils ³ :
Hydric Soil	Indicators: (Applic	able to all	LKKS, unless othe	:rwise noted.	,	1110		
Histosol	(A1)		Sandy Redox (S	35)			2 cm Muck (A10)	
	pipedon (A2)		Stripped Matrix	(S6)			Red Parent Material (TF2)	
Black Hi		_	Loamy Mucky N	lineral (F1) (e	xcept MLR	A1) —	Very Shallow Dark Surface (TF12)
	n Sulfide (A4)	_	Loamy Gleyed I				Other (Explain in Remarks)	
nyuloge	ili Sulliuc (A4) I Balaw Dark Suefaa	0/044)	Depleted Matrix	/E3)		_		
	Below Dark Surfac	B(AII)					3Indicators of hydrophytic ve	netation and
	ark Surface (A12)	_	Redox Dark Sui				wetland hydrology must be p	getation and
	lucky Mineral (S1)	_	Depleted Dark S				unless disturbed or problema	nesent,
Sandy G	leyed Matrix (S4)	_	Redox Depress	ions (F8)			unless disturbed of problema	311C

estrictive La	yer (if present):			1				
Type:				1	Hydric Soi	il Present?	Yes X No	
					•			
Depth (inch	les):							· -
/DROLOG	Y							
Vetland Hydro	ology Indicators:					_		1 al\
rimary Indicat	ors (minimum of one	required; o	check all that apply)		Seco	ondary Indicators (2 or more r	equirea)
	*		Water-Stain	ed Leaves (B	9) (except		Vater-Stained Leaves (B9) (M	LRA 1, 2,
Surface Wa	ter (A1)			4A, and 4B)			IA, and 4B)	
High Water			Salt Crust (f				Orainage Patterns (B10)	
Saturation (V3)			ertebrates (B1	3)		Dry-Season Water Table (C2)	
Mater Mark	//O) - /P1\			ulfide Odor (C			Saturation Visible on Aerial Im	
Water Mark	\$ (01)			nizospheres al		`		,
0	(DO)			IIZOSPITETES AI	ond riving		Geomorphic Position (D2)	
	eposits (B2)		Roots (C3)	Conducted land	· (CA)		Shallow Aquitard (D3)	
Drift Deposi	its (B3)			Reduced Iron		<u> </u>	Strailow Addition (D2)	
				Reduction in	t illed		EAG No. steel Took (DE)	
Algal Mat or	r Crust (B4)		Soils (C6)			'	FAC-Neutral Test (D5)	
			Stunted or S	Stressed Plans	ts (D1)			
Iron Deposi	ts (B5)		(LRR A)				Raised Ant Mounds (D6) (LRI	(A)
	l Cracks (B6)		Other (Expl	ain in Remark	s)	1	Frost-Heave Hummocks (D7)	
	Visible on Aerial Ima	gery (B7)						
	egetated Concave S							
. opaiosiy vi	-3-2-104 00110410 0							
	Hone:	1.0			1			
ield Observe	itions.	X	Depth (inches	v 77:0	. 1			4
	December Van	∕ ∨ No	Depth (inches		1 Wa	eland Hyd	rology Present? Yes 🔌	No.
urface Water			I IONTO HOCOGO	<i>}</i>	- 446	tiatiu nyd	CIORAL LESCUEL 169	* "" —
orface Water Vater Table P	resent? Yes	∑ No ∶	Debut (mones					/ \
ield Observa ourface Water Vater Table Po aturation Pre	resent? Yes sent?	× No :		N.			′	
surface Water Vater Table Peraturation Pre- Includes capill	resent? Yes sent? ary fringe) Yes	No No	Depth (inches					
surface Water Vater Table Peraturation Pre- Includes capill	resent? Yes sent? ary fringe) Yes	No No	Depth (inches		inspections	s), if availa	ble:	
surface Water Vater Table Peraturation Pre- Includes capill	resent? Yes sent?	No No	Depth (inches		inspections	s), if availa	ble:	
urface Water Vater Table Pe aturation Pre- ncludes capill	resent? Yes sent? ary fringe) Yes	No No	Depth (inches		inspections	s), if availa	ble:	
urface Water Vater Table Pr aturation Pre ncludes capill scribe Record	resent? Yes sent? ary fringe) Yes	No No	Depth (inches		inspections	s), if availa	ble:	
urface Water Vater Table Praturation Pre- ncludes capill scribe Record	resent? Yes sent? ary fringe) Yes	No No	Depth (inches		inspections	s), if availa	ble:	
urface Water /ater Table Praturation Pre- ncludes capill scribe Record	resent? Yes sent? ary fringe) Yes	No No	Depth (inches		inspections	s), if availa	ble:	
urface Water Vater Table Pe aturation Pre- ncludes capill	resent? Yes sent? ary fringe) Yes	No No	Depth (inches		inspections	s), if availa	ble:	

	THE STATE OF THE STEEL IN	wountains, valleys, and Coast Region
Project/Site: Hart Ranch	City/County Siski Vou Pr	8/23/2011
Applicant/Owner: Hart Ranch	States OA Second	Sampling Date: 012012010
Applicant/Owner: Hart Ranch Investigator(s): Andrea Rance	Section Township Dance	ing Point:
Landform (hillslone terrace etc.):	Section, Township, Range:	75 N 1 KS W SECT 1, 2+3
Landform (hillslope, terrace, etc.):	Local relief (concave, conve	x, none): Slope (%):
Subregion (LRR): MLRA 22B	Lat. a 340-46 Long: 41 6	18 05 Datum: NAD 13
Soil Map Unit Name: 189 me offer	a lay loan ego!	NWI classification:
Are climatic / hydrologic conditions on the site type	pical for this time of year? Yes 🗶 No	(If no explain in Remarks)
We Andergroup ' 2011 ' OL HAGLOID	199 🔼 significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrolo	gy ND naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	te map showing sampling poin	t locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	140 Z	h a
Wetland Hydrology Present?	No Is the Sampled Area w	Ithin a Wetland? Yes No
	70	
Remarks:		
	ditch bank	
	CITCALDUNC	
VECETATION I les colonélés	-P) .	
VEGETATION - Use scientific names	of plants.	
Tree Charles APInt of	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
•	= Total Cover	
Sapling/Shrub Stratom (Plot size:)	1001000	Prevalence Index worksheet:
1.		
2.		
3		OBL species x1 =
4		FACW species x 2 =
*·		FAC species x3 =
J		FACU species (O() x4 = 340
and the land	= Total Cover	UPL species x 5 =
Herb Stratum (Plot size: 100)	100 11 500	70/6 3/1/5
Elymus elymoides	UU Y FACU	Column Totals: (A) (B)
2.		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	1. 17 J. 18 J. 18 1	1 - Rapid Test for Hydrophytic Vegetation
	in a section is	2 - Dominance Test is >50%
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
o.		
	2 fr 44 44 44	5 - Wetland Non-Vascular Plants ¹
1	40	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	findicators of hydric soil and wetland hydrology must
/oody Vine Stratum (Plot size:)	-	be present, unless disturbed or problematic.
		4.5
·	A State of the said	
cin	= Total Cover	nydiopnytic
Bare Ground in Herb Stratum 40		Vegetation Present? Yes No
	,	100eur 1 182 40 \
emarks:		
		}
		}

OIL Profile Description: (Describe to the de	epth needed to document the ind	licator or confin	m the absence of indicators.)
Depth Matrix	Redox Feat	tures	"
(inches) Color (moist) %	Color (moist) %	Type'	100
0-18 2.54842100			cayloam
	10		
	50		
		- n	
		0.1.1010	Grains, ² Location: PL=Pore Lining, M=Matrix.
Type: C=Concentration, D=Depletion, Rf	M≍Reduced Matrix, CS=Covered o	or Coated Sand C	
Hydric Soil Indicators: (Applicable to	all LRRs, unless otherwise noted	d.)	Indicators for Problematic Hydric Soils ³ :
Histosof (A1)	Sandy Redox (S5)		2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) ((except MLRA 1	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		³ Indicators of hydrophytic vegetation and
Thick Dark Surface (A12)	Redox Dark Surface (F6)		wetland hydrology must be present,
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) Redox Depressions (F8)		unless disturbed or problematic
Sandy Gleyed Matrix (S4)		1	
estrictive Layer (if present):			\ <u>/</u>
Type:		Hydric Soil Pi	resent? Yes No _X
Depth (inches):			* *
marks:		·	
		مسلس م الم	may a
	noina	dicato	·C
	noine	dicato	\(\)
etland Hydrology Indicators:		dicato	
etland Hydrology Indicators:	d; check all that apply)		Secondary Indicators (2 or more required)
etland Hydrology Indicators: Imary Indicators (minimum of one required	d; check all that apply) Water-Stained Leaves (l	B9) (except	
etland Hydrology Indicators: Imary Indicators (minimum of one required Surface Water (A1)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B	B9) (except	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
etland Hydrology Indicators: imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Sait Crust (B11)	B9) (except	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
etland Hydrology Indicators: Imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (B9) (except) 113) (C1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
etland Hydrology Indicators: imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres	B9) (except) 113) (C1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
etland Hydrology Indicators: imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B, Sait Crust (B11) Aquatic Invertebrates (B, Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3)	B9) (except) 113) (C1) along Living	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
etland Hydrology Indicators: imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In	B9) (except) 113) (C1) along Living on (C4)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
etiand Hydrology Indicators: Imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced Interest (B)	B9) (except) 113) (C1) along Living on (C4)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
etiand Hydrology Indicators: Imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6)	B9) (except) 113) (C1) along Living on (C4) n Tilled	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
etland Hydrology Indicators: Imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Alga! Mat or Crust (B4)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced Interest (C6) Recent Iron Reduction into Soils (C6) Stunted or Stressed Pla	B9) (except) 113) (C1) along Living on (C4) n Tilled	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
etiand Hydrology Indicators: imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced Interpretation (C6) Soils (C6) Stunted or Stressed Plain (LRR A)	B9) (except) (C1) along Living on (C4) n Tilled	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
etiand Hydrology Indicators: Imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remai	B9) (except) (C1) along Living on (C4) n Tilled	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
etland Hydrology Indicators: Imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remain	B9) (except) (C1) along Living on (C4) n Tilled	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
retiand Hydrology Indicators: rimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remain	B9) (except) (C1) along Living on (C4) n Tilled	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Alga! Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (E)	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remain)	B9) (except) (C1) along Living on (C4) n Tilled	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
retriand Hydrology Indicators: rimary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Alga! Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B1) Indicator Crust (B4) Indicator Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B1) Indicator Visible On Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B1) Indicator Visible On Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B1) Indicator Visible On Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B1) Indicators: Indicators (B1) Indicators (B1) Indicators (B1) Indicators (B1) Indicators (B1) Indicators (B1) Indicators (B2) Indicat	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (C3) Presence of Reduced In Recent Iron Reduction ii Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remain) 38)	B9) (except) 313) (C1) along Living on (C4) n Tilled ints (D1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
etland Hydrology Indicators: Imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Alga! Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (E1) Indicator Water Present? Ves No. Vater Table Present? Yes No.	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remains)	B9) (except) 313) (C1) along Living on (C4) n Tilled ints (D1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (E1) Ield Observations: Urface Water Present? Ves Notaturation Present?	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced In Recent Iron Reduction ii Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail	B9) (except) 313) (C1) along Living on (C4) n Tilled ints (D1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
etiand Hydrology Indicators: Imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Alga! Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (E1) eld Observations: urface Water Present? Yes No later Table Present Pre	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remains) Depth (inches): Depth (inches):	B9) (except) 313) (C1) along Living on (C4) n Tilled ints (D1) rks) Wetlan	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
etland Hydrology Indicators: imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Alga! Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (E eld Observations: urface Water Present? Yes No fater Table Present? Yes No	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remains) Depth (inches): Depth (inches):	B9) (except) 313) (C1) along Living on (C4) n Tilled ints (D1) rks) Wetlan	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
etiand Hydrology Indicators: imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Alga! Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (E eld Observations: urface Water Present? Yes No later Table Present? Yes No atter Table Present? Yes No atter Table Present? Yes No carried Recorded Data (stream gauge, more	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remains) Depth (inches): Depth (inches):	B9) (except) 313) (C1) along Living on (C4) n Tilled ints (D1) rks) Wetlan	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
etland Hydrology Indicators: Imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (E1) Indicator Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (E1) Indicator Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (E1) Indicator Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (E1) Indicator Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (E1) Indicator Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (E1) Indicator Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (E1) Indicator Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (E1) Indicator Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (E1) Indicator Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (E1) Indicator Visible on Aerial Imagery (B7) Indicator Visible on Aerial Imager	d; check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remains) Depth (inches): Depth (inches):	B9) (except) 313) (C1) along Living on (C4) n Tilled ints (D1) rks) Wetlan us inspections), fi	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

		Mountains, Valleys, and Coast Region
Project/Site: HAVA-RANA	City/Country Sickinson De	9.4 Sampling Date: 8/23/2016
Applicant/Owner: Hart Ranch	City/county: State Vous	Sampling Date: 0/23/2010
investigator(s):	State: CA Samp	ling Point:
Investigator(s): Andréa Robe	Section, Township, Range:	75N R 5W Sect 1,2+3
		ex, none): Nove Slope (%):
Soil Map Unit Name: 189 meato	ra clay (som cool	ABAB at a second by E.A.
The site typi	ical for this time of year? Yes 💙 🛝 🗛	(If we are left to the state of
, at together, total, or mydrolog	BY INU SIGNIFICANTIV disturbed? Are	"Normal Circumstances" present? Yes X No
, soil, or Hydrolog	naturally problematic?	(If needed, explain any answers in Remarks.)
SHMMARY OF FINDINGS - Attack of		•
Hydrophytic Vegetation Present? Yes	No	t locations, transects, important features, etc.
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No Is the Sampled Area w	
Wetland Hydrology Present? Yes	No	ithin a Wetland? Yes X No
Remarks		<u> </u>
Evans ditch		
Client		
VEGETATION - Use scientific names of	of plants.	
Tree Stratum Wild attention	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Rlot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC:(A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		1
2.		
		OBL species x1 =
1.		FACW species x 2 =
		FAC species x3 =
	-7-410	FACU species x4=
lerb Stratum (Plot size: M2)	= Total Cover	UPL species x 5 =
		0.1
		(5)
		Prevalence Index = 8/A =
	- 47 h / w may for the	Hydrophytic Vegetation Indicators:
	- 25 - A - 254-24 ()	1 - Rapid Test for Hydrophytic Vegetation
	be to empth is a	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
	100 pt 10	4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
)		5 - Wetland Non-Vascular Plants ¹
l		Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	
oody Vine Stratum (Plot size:	= Total Cover	findicators of hydric soil and wetland hydrology must
	Ĺ	be present, unless disturbed or problematic.
-	4. Jay 4-3 p. 4.	All Commences
	A Barrens	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation /
	Jeto J.	Present? Yes No
	NOW MIL	
marks:	29 open water at	The state of the s
\sim $^{\prime}$ $^{\prime}$	JAMES JAMES	a chaprible sparse par
.170	0000 nie	a chapribal spars coas in
	VI (I)	ON THE PROPERTY OF THE PROPERT

OIL			হল্ডামী ডিল হল	
Profile Description: (Describe to the de	pth needed to document the	e indicator or confi Features	rm the absence of indicator	8.)
Depth Matrix (inches) Color (moist) %	Color (moist) %		Łoc² Texture	Remarks
			0/4.1.1.4	12.00
0-18 2.54E412 85	54R416 15		n Clary 1021	47.4
				. <u></u> _
	·			
		<u> </u>		
	<u> </u>	- 1		
	De de la collega	— — – –	Grains 2 ocation: PL=Po	re Lining, M=Matrix.
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, CS=Cove	red or Coaled Sand	<u> </u>	
Hydric Soil Indicators: (Applicable to	all LRRs. unless otherwise i	noted.)	Indicators for Problem	atic Hydric Soils ³ :
			2 cm Muck (A10)	
Histosol (A1)	Sandy Redox (S5)		Red Parent Material	(TF2)
Histic Epipedon (A2)	Stripped Matrix (S6)	(E4) (aveant MI PA		Surface (TF12)
Black Histic (A3)	Loamy Mucky Mineral (Other (Explain in Re	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F3)	r2)		······································
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	:6)	3 Indicators of hydror	phytic vegetation and
Thick Dark Surface (A12)	Redox Dark Surface (F	(C7)	wetland hydrology n	nust be present.
Sandy Mucky Mineral (S1)	Depleted Dark Surface		unless disturbed or	problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8	<u> </u>	Unicos distantes	
			S A	
Restrictive Layer (if present):		Hydric Soil F	named Van X	No
Type:		Hydric Soil i	Fresentr res	
Depth (Inches):		.		<u> </u>
emarks:				
ciliaina.		t		
^ L	. When class VIV		~ Linchway	Port I
(',	ecued scit vir	THE WAY	0	V V
	in the second se	de la		آ
YDROLOGY				
Wetland Hydrology Indicators:		<u> </u>		١ ٩١
Primary Indicators (minimum of one require	ed; check all that apply)		Secondary Indicators (2 c	r more required)
Timery medicators (minutes)	Water-Stained Lea	ves (B9) (except	Water-Stained Leave	s (B9) (MLRA 1, 2,
		id 48)	4A, and 4B)	
Surface Water (A1)	MLRA 1, 2, 4A, an			4.61
Surface Water (A1)	MLRA 1, 2, 4A, and Sait Crust (B11)		Drainage Patterns (B	10)
High Water Table (A2)	Sait Crust (B11) Aquatic Invertebrat	tes (B13)	Dry-Season Water Ta	able (C2)
High Water Table (A2) Saturation (A3)	Sait Crust (B11) Aquatic Invertebrat	tes (B13)	Drainage Patterns (B Dry-Season Water Ta Saturation Visible on	able (C2)
High Water Table (A2) Saturation (A3)	Salt Crust (B11)	tes (B13) Odor (C1)	Dry-Season Water Ta Saturation Visible on	able (C2) Aerial Imagery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1)	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph	tes (B13) Odor (C1) neres along Living	Dry-Season Water Ta Saturation Visible on Geomorphic Position	able (C2) Aerial Imagery (C9) (D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc	tes (B13) Odor (C1) neres along Living ced Iron (C4)	Dry-Season Water Ta Saturation Visible on	able (C2) Aerial Imagery (C9) (D2)
High Water Table (A2) Saturation (A3) Water Marks (B1)	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc	tes (B13) Odor (C1) neres along Living ced Iron (C4)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3	able (C2) Aerial Imagery (C9) (D2))
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph	tes (B13) Odor (C1) neres along Living ced Iron (C4)	Dry-Season Water Ta Saturation Visible on Geomorphic Position	able (C2) Aerial Imagery (C9) (D2))
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduct Recent Iron Reduct Solls (C6)	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5)	able (C2) Aerial Imagery (C9) (D2))
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduct Recent Iron Reduct Solls (C6) Stunted or Stresse (LRR A)	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduct Recent Iron Reduct Solls (C6) Stunted or Stresse (LRR A)	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5)	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A)
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)	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduct Recent Iron Reduct Soils (C6) Stunted or Stresse (LRR A) Other (Explain in Reduction Recent Iron Reduction Iron Recent Iron Reduction Recent Iron Reduction Iron Recent Iron Reduction Iron Recent Iron Iron Iron Iron Iron Iron Iron Iron	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduct Recent Iron Reduct Soils (C6) Stunted or Stresse (LRR A) Other (Explain in R	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A)
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)	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduct Recent Iron Reduct Soils (C6) Stunted or Stresse (LRR A) Other (Explain in R	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (B2)	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduct Recent Iron Reduct Soils (C6) Stunted or Stresse (LRR A) Other (Explain in R	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) tron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations:	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Soils (C6) Stunted or Stresse (LRR A) Other (Explain in R	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D6 Raised Ant Mounds (Frost-Heave Hummo	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) tron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Soils (C6) Stunted or Stresse (LRR A) Other (Explain in R 7) B8)	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) tron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Water Table Present?	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Soils (C6) Stunted or Stresse (LRR A) Other (Explain in R	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D6 Raised Ant Mounds (Frost-Heave Hummo	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Soils (C6) Stunted or Stresse (LRR A) Other (Explain in R 7) B8) Depth (inches):	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks)	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D6 Raised Ant Mounds (Frost-Heave Hummo	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (B1) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Yes	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Solls (C6) Stunted or Stresse (LRR A) Other (Explain in R 7) B8) Depth (inches): Depth (inches):	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks) Wetla	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D4 Raised Ant Mounds (Frost-Heave Hummo and Hydrology Present?	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (B1) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Yes	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Solls (C6) Stunted or Stresse (LRR A) Other (Explain in R 7) B8) Depth (inches): Depth (inches):	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks) Wetla	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D4 Raised Ant Mounds (Frost-Heave Hummo and Hydrology Present?	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (B1) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Yes	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Solls (C6) Stunted or Stresse (LRR A) Other (Explain in R 7) B8) Depth (inches): Depth (inches):	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks) Wetla	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D4 Raised Ant Mounds (Frost-Heave Hummo and Hydrology Present?	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Solls (C6) Stunted or Stresse (LRR A) Other (Explain in R 7) B8) Depth (inches): Depth (inches):	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks) Wetla	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D4 Raised Ant Mounds (Frost-Heave Hummo and Hydrology Present?	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B5) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Yes	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Solls (C6) Stunted or Stresse (LRR A) Other (Explain in R 7) B8) Depth (inches): Depth (inches):	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks) Wetla	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D4 Raised Ant Mounds (Frost-Heave Hummo and Hydrology Present?	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (B1) Field Observations: Surface Water Present? Water Table Present? Water Table Present? (includes capillary fringe) Prescribe Recorded Data (stream gauge, me	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Solls (C6) Stunted or Stresse (LRR A) Other (Explain in R 7) B8) Depth (inches): Depth (inches):	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks) Wetla	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D4 Raised Ant Mounds (Frost-Heave Hummo and Hydrology Present?	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (B5) Surface Water Present? Water Table Present? Water Table Present? (includes capillary fringe) Yes Sescribe Recorded Data (stream gauge, me	Salt Crust (B11) Aquatic Invertebrat Hydrogen Sulfide C Oxidized Rhizosph Roots (C3) Presence of Reduc Recent Iron Reduc Solls (C6) Stunted or Stresse (LRR A) Other (Explain in R 7) B8) Depth (inches): Depth (inches):	tes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled ed Plants (D1) Remarks) Wetla	Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D4 Raised Ant Mounds (Frost-Heave Hummo and Hydrology Present?	able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)

	TOTAL OTTER - WESTERN	dountains, valleys, and Coast Region
Project/Site: HAVT-Kanch	city/county: Siskiyou Co	8/22/2011
Applicant/Owner: Htd./t Kain/ in	States CA Count	The Batter
Investigator(s): Andréa Rabe	Section Township Boson	ing Point:
Landform (hillslope, terrace, etc.):	Section, Township, Range:	45N, R5W Sect 1,2+3
Subregion (LRR): MLRA 22B	Local reflet (concave, conver	x, none):
Soil Map Unit Name: 189 Mer	Lat. Cong. T. OT	
Are climatic / hydrologic conditions on the size (ford ClayLoam	NWI classification:
Are climatic / hydrologic conditions on the site typ	No	(if no, explain in Remarks,)
Are Vegetation Seit or I bedeat	gy (N) significantly disturbed? Are	"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrolog	9y Naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach eit	e man chowing compline	Manathana A
Hydrophytic Vegetation Present? Yes	No V	locations, transects, important features, etc
Hydric Soil Present? Yes	No Sampled Area wi	ithin a Wetland? Yes No X
Wetland Hydrology Present? Yes	No So	
Remarks:		
VEGETATION – Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across Ali Strata: (B)
4.		Percent of Dominant Species
·		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		_Total % Cover of: Multiply by:
2.		OBL species x1=
3.		FACW species x 2 =
4.		
5.		
	= Total Cover	FACU species $5D \times 4 = 200$
Herb Stratum (Plot size: 1/1) (2)	10001001	UPL species <u>20</u> x 5 = <u>100</u>
· Centamea solstitialis	20 4 UPL	Column Totals: 70 (A) 300 (B)
e. Elutricia recens	10 W NT	Prevalence Index = B/A = 4; 2
3. Flumes Elympidas	40 V FACU	r revalence index = B/A =
. Poa secunda	ID VI TACH	Hydrophytic Vegetation Indicators:
5.	19 y mayor	per l
3.		1 - Rapid Test for Hydrophytic Vegetation
	So is sentito at i	2 - Dominance Test is >50%
	N	3 - Prevalence Index is ≤3.01
	A	4 - Morphological Adaptations' (Provide supporting I
0.		data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹
1		
Tr	(Car)	Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vino Ctratum	= Total Cover	¹Indicators of hydric soil and wetland hydrology must
Voody Vine Stratum (Riot size:)	ļ	be present, unless disturbed or problematic.
· ·		5 V . 2005
· — — — .		Hydrophytic
2.	= Total Cover	Vegetation
Bare Ground in Herb Stratum 35 26	Ì	Present? Yes No
	1	
emarks:		

SOIL				ক্রীনেত্রাদলে ভার	
Profile Description: (Describe to the depth	needed to document the in	dicator or conf	irm the ab	sence of indicators.)	
Depth Matrix	Redox Fea	atures			
(inches) Color (moist) %	Color (moist) %	Type'	Loc ²	Texture	Remarks
0-18 2.54R412 100					
				·	

¹ Type: C=Concentration, D=Depletion, RM=Re	educed Matrix, CS=Covered	or Coated Sand	Grains.	² Location: PL=Pore	Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LI	RRs. unless otherwise note	:d.)	Indic	ators for Problemati	ic Hydric Solls³:
· · · · · · · · · · · · · · · · · · ·		,		cm Muck (A10)	•
Histosoi (A1)	Sandy Redox (S5)			ted Parent Material (T	F2)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1)	/avcent MI DA		ery Shallow Dark Sur	
Black Histic (A3)	Loamy Gleyed Matrix (F2)	(except micros		ther (Explain in Rema	
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		~	tilei (Explair ii) (ein	a
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3	ndicators of hydrophy	tic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7))		etland hydrology mus	
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	•	u	nless disturbed or pro	blematic
		1			
Restrictive Layer (if present):					
Type:		Hydric Soil	Present?	Yes	No <u>~</u>
Depth (inches):		*		\	
		<u>'</u>			· · · · · · · · · · · · · · · · · · ·
Remarks:					
	6 F				
NOV	ndicators				
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Applicant/Owner: Hart Kanck Investigator(s): Mark Rape Landform (hillslope, terrace, etc.): Hard Rape Subregion (LRR): Mark Rape Soil Map Unit Name: Ist Mark Rape Are climatic / hydrologic conditions on the site typic Are Vegetation Soil or Hydrology Are Vegetation Soil or Hydrology SUMMARY OF FINDINGS - Attach site Hydrophytic Vegetation Present? Yes Neglect Soil Present? Yes Neglect Rape Rape Rape Rape Rape Rape Rape Rape	Section, Township, Range: Local relief (concave, converted: Lat: 122,374,08 Long: Color 100 M COO cal for this time of year? Yes X No No significantly disturbed? Are naturally problematic?	Ing Point: 45 N
Remarks:	ditchba	nk
Tree Stratum (Plot size:) 1. 2. 3.	f plants. Absolute Dominant Indicator <u>% Cover Species? Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:) 1	= Total Cover = Total Cover VOC	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FAC species x3 = FACU species x4 = UPL species x5 = 300 Column Totals: (A) 300 (B) Prevalence Index = B/A =
4	CO = Total Cover	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6 Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
emarks:		

SOIL			Sandia 130
Profile Description: (Describe to the dep	th needed to document the ind	icator or confirm the	absence of indicators.)
Depth Matrix	Redox Feat	ures	Texture Remarks
(inches) Color (moist) %	Color (moist) %	Type' Loc*	
0-18 25 NEY/2 100	V		<u>clayloan</u>
2			
¹ Type: C=Concentration, D=Depletion, RM=	-Paducad Matrix CS=Covered o	r Coated Sand Grains	Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all		i,) ir	ndicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 	2 cm Muck (A10) Red Parent Material (TF2)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MI RA 1)	Very Shallow Dark Surface (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		
Thick Dark Surface (A12)	Redox Dark Surface (F6)		³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7) Redox Depressions (F8)		wetland hydrology must be present, unless disturbed or problematic
Sandy Gleyed Watrix (54)	Redux Depressions (FO)		
Restrictive Layer (if present):			\checkmark
Type:		Hydric Soil Presen	17 Yes No
Depth (inches):			
Remarks:			
A - 10 - A	11 cators		
	The statement of the st		
1 10 11 10	11 601013		
110116	11 Cators		
HYDROLOGY	11 Carons		
HYDROLOGY Wetland Hydrology Indicators:		Sei	condary indicators (2 or more required)
HYDROLOGY	check atl that apply)		condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators:		39) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2)	check atl that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	39) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B	39) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (13) (except ————————————————————————————————————	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a	13) (except 13) C1) along Living	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Roots (C3)) Presence of Reduced Inc.	13) (except 13)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Roots (C3) Presence of Reduced Interest (Roots (13) (except 13)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Interpretation (C6) Recent Iron Reduction interpretation (C6)	13) (except 13)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Int Recent Iron Reduction in Soils (C6) Stunted or Stressed Plan (LRR A)	13) (C1) along Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Interpretation (C6) Recent Iron Reduction interpretation (C6) Stunted or Stressed Plan	13) (C1) along Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Roots (C3) Presence of Reduced Interpretation (C3) Recent Iron Reduction in Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remark	13) (C1) along Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Roots (C3) Presence of Reduced Interpretation (C3) Recent Iron Reduction in Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remark	13) (C1) along Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Roots (C3) Presence of Reduced Interpretation (C3) Recent Iron Reduction in Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remark	13) (C1) along Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Roots (C3) Presence of Reduced Interpretation (C6) Soils (C6) Stunted or Stressed Plant (LRR A) Other (Explain in Remand)	13) (C1) along Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No. Water Table Present? Yes No.	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced in Recent Iron Reduction in Soils (C6) Stunted or Stressed Plan (LRR A) Other (Explain in Reman)	13) (C1) along Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Roots (C3) Presence of Reduced Ind Recent Iron Reduction in Soils (C6) Stunted or Stressed Plant (LRR A) Other (Explain in Remain) Depth (Inches): Depth (Inches):	13) (C1) along Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Inv. Recent Iron Reduction in Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remand) Depth (Inches): Depth (inches):	13) (C1) along Living on (C4) Tilled onts (D1) iks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Inv. Recent Iron Reduction in Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remand) Depth (Inches): Depth (inches):	13) (C1) along Living on (C4) Tilled onts (D1) iks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Inv. Recent Iron Reduction in Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remand) Depth (Inches): Depth (inches):	13) (C1) along Living on (C4) Tilled onts (D1) iks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Inverterbrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irr Recent Iron Reduction in Soils (C6) Stunted or Stressed Plan (LRR A) Other (Explain in Remand) Depth (Inches): Depth (inches): Depth (inches):	13) (C1) along Living on (C4) Tilled onts (D1) rks) Wetland Hye	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No Describe Recorded Data (stream gauge, monit	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Inverterbrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irr Recent Iron Reduction in Soils (C6) Stunted or Stressed Plan (LRR A) Other (Explain in Remand) Depth (Inches): Depth (inches): Depth (inches):	13) (C1) along Living on (C4) Tilled onts (D1) rks) Wetland Hye	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No Describe Recorded Data (stream gauge, monit	check all that apply) Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Inverterbrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irr Recent Iron Reduction in Soils (C6) Stunted or Stressed Plan (LRR A) Other (Explain in Remand) Depth (Inches): Depth (inches): Depth (inches):	13) (C1) along Living on (C4) Tilled onts (D1) iks) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

WEILAND DEI ERMINA	HON DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: Hart-Kanch	city/county: Siski you	D. Sampling Date: 8/23/2010
Investigator(s):	State: CA Sam	pling Point: 35
Investigator(s): Marka Kaloe	Section, Township, Range:	. 45N, RSW Sect 1,2+3
Landform (hillslope, terrace, etc.): +CVA Subregion (LRR): MLRA 22B Soil Map Unit Name: VOCATA	Local relief (concave, conv	/ex, none): Slope (%):
Soil Map Unit Name: 189 mento.	Lat. Tal. 3-14 Cong: TL	Datum: NAN 83
Are climatic / hydrologic conditions on the site typ		NWI classification:
Are Vegetation Soil or Hydrolog	N N D Digniscontrolled Ves	o (If no, explain in Remarks.) e "Normal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrolog	ay No naturally problematic?	e "Normal Circumstances" present? Yes No
		(If needed, explain any answers in Remarks.) nt locations, transects, important features, etc.
Hydric Soil Present? Yes	No Is the Sampled Area to No	
Remarks:		
diteh		
VEGETATION - Use scientific names of	of plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicato	
1	% Cover Species? Status	I required of Collingia Species
2. 3. 4.		That Are OBL, FACW, or FAC: (A)
3.		Total Number of Dominant Species Across All Strata: (B)
4.		Percent of Dominant Species (B)
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapiine/Shrub Stratum (Plot size:)	1000 0070	Prevalence Index worksheet:
1,		Total % Cover of: Multiply by:
2.		OBL species x1=
3.		
4.		
5.		
Las V	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: MZ)		UPL species x5 =
1.		Column Totals: (A) (B)
2.		Prevalence Index = B/A =
4.		
5.		Hydrophytic Vegetation Indicators:
3.	74	1 - Rapid Test for Hydrophytic Vegetation
7.	143 at 6728 cm 4	2 - Dominance Test is >50%
-		3 - Prevalence Index is ≤3.01
	Control Marine	4 - Morphological Adaptations (Provide supporting)
10.		data In Remarks or on a separate sheet)
11.	15 16 45 13	5 - Wetland Non-Vascular Plants ¹
	= Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
Voody Vine Stratum (Plot size:	= 10tal Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		be present, unless disturbed or problematic.
	1 (2.74)	A Adaption
6 Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
·	in Circuma I	
Remarks:	A A TOTAL OF THE STATE OF THE S	- And -
n ldl	War Vo.	also interest use ide
- Kupa	manuatroves (1) Yes	a - chapted by severand

SOIL		Sampling Folial 136
Profile Description: (Describe to the	epth needed to document the indicator or confirm the al Redox Features	sence of indicators.)
Depth Matrix (inches) Color (moist) %	Color (moist) % Type Loc²	Texture Remarks
		cleutoarn
0-18 254R4/2 90	54R416 10 M	
	-	
	\$2000 m	
	<u> </u>	
¹ Type: C=Concentration, D=Depletion, F	M=Reduced Matrix, CS=Covered or Coated Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to		cators for Problematic Hydric Soils ³ :
	Sandy Redox (S5)	2 cm Muck (A10)
Histosol (A1)	Stripped Matrix (S6)	Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Bopiotee Barriera (* *)	wetland hydrology must be present, unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	uniess disturbed or problematic
Restrictive Layer (if present):	Hydric Soil Present?	Ves X No
Type:		169
Depth (inches):		
HYDROLOGY Wetland Hydrology Indicators:	Soco	odany Indicators (2 or more required)
		ndary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	Water-Stained Leaves (B9) (except V	/ater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements) Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Solt Crust (B11)	/ater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	/ater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	/ater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living	/ater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3)	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) reomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4)	vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required of the primary Indicators (minimum of one required of the primary Indicators (Management	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) reomorphic Position (D2) hallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required of the surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Sturted or Stressed Plants (D1)	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required of the Primary Indicators (minimum of one required of the Primary Indicators (Management Papers) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required of the Primary Indicators (minimum of one required of the Primary Indicators (Management Capacitation (Management Capacita	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required of the Primary Indicators (minimum of one required of the Primary Indicators (minimum of one required of the Primary Indicators (Marchael of the Primary Indicators (Marchae	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required of the Primary Indicators (minimum of one required of the Primary Indicators (Management Capacitation (Management Capacita	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) taised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Water Table Present? (includes capillary fringe) Yes	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) ODepth (inches): Wetland Hydrones	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Water Table Present? (includes capillary fringe) Yes	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) ODEPTH (Inches): Depth (inches): Wetland Hydrogen	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Water Table Present? (includes capillary fringe) Yes	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) ODepth (inches): Wetland Hydrones	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) decomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) daised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Water Table Present? (includes capillary fringe) Yes	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) ODepth (inches): Wetland Hydrones	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Saturation Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, near the present gauge gauge, near the present gauge gauge, near the present gauge ga	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Obepth (inches): Wetland Hydrones	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region Project/Site: HAVA Kanch City/County: Siski Vou Co. sampling Date: Applicant/Owner: Hart Ranch State: CA' Sampling Point: Investigator(s): Andréa Kabe Section, Township, Range: T. 45N Landform (hillslope, terrace, etc.): +errace Local relief (concave, convex, none): 1000. Slope (%): Subregion (LRR): MLRA 22B Lat: 120,374554 Long: 41.686600 Datum: Soil Map Unit Name: 189 medford Clay loam cod NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.) Are Vegetation _____, Soil ____, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes , Soil ____, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? __ No Yes Hydric Soil Present? Yes No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes . Νo Remarks: ditchbank VEGETATION - Use scientific names of plants. Absolute Dominant Dominance Test worksheet: Indicator Tree Stratum % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: **(B)** Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) = Total Cover Sapling/Shrub Stratum (Plot size: Prevalence Index worksheet: Total % Cover of: Multiply by: **OBL** species x 1 = **FACW** species x 2 = FAC species x 3 = FACU species x 4 == Total Cover UPL species Herb Stratum (Plot size: \ M Column Totals: _SO (A) Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** 1 - Rapid Test for Hydrophytic Vegetation 6. 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations (Provide supporting 9. data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) = Total Cover ¹Indicators of hydric soil and wetland hydrology must Woody Vine Stratum √Plot size: be present, unless disturbed or problematic. Hydrophytic = Total Cover Vegetation % Bare Ground in Herb Stratum Present? Remarks:

SOIL	
Profile Description: (Describe to the	depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix	Redox Features
(inches) Color (moist) %	Color (moist) % Type Loc Texture Remarks
0-16 25 424/2 10c	Clay loam
10-16 10 YE313 100	
10-19 10 18 313	
	
	21 continue Di Para Lining Ma-Matrix
¹ Type: C=Concentration, D=Depletion, I	RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to	o all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5) 2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6) Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Other (Explain in Remarks)
Depleted Below Dark Surface (A11	
Thick Dark Surface (A12)	Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Dark Surface (F7) Wetland hydrology must be present,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7) wetland hydrology must be present, Redox Depressions (F8) unless disturbed or problematic
Saridy Gleyed Matrix (34)	Neodx Depressions (1 d)
Restrictive Layer (if present):	
Type:	Hydric Soil Present? Yes No
Depth (inches):	
Remarks:	
	MILL CALL SALL SALL SALL SALL SALL SALL SA
	no indicators
	Moindicortors
HYDROLOGY	Mondicators
HYDROLOGY Wetland Hydrology Indicators:	
	red; check all that apply) Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	red; check all that apply) Water-Stained Leaves (B9) (except Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements Surface Water (A1) High Water Table (A2)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements Surface Water (A1) High Water Table (A2) Saturation (A3)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements Surface Water (A1) High Water Table (A2)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Barbara (B	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B1) Sparsely Vegetated Concave Surface	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Inspection of Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Espansely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Includes Capillary fringe) Field Observations: Surface Water Present? Saturation Present? (Includes capillary fringe) Yes	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) No Depth (Inches): No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches):
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Includes Capillary fringe) Field Observations: Surface Water Present? Ves Saturation Present? (Includes capillary fringe) Surface Water Surface	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) FAC-Neutral Test (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) No Depth (inches): Wetland Hydrology Present? Yes No
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Wetland Hydrology Indicators: Primary Indicators (minimum of one requirement) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (includes Capillary fringe) Field Observations: Surface Water Present? Yes Saturation Present? (includes capillary fringe)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Popth (inches): No Depth (inches): No Depth (inches): Depth (inches): No Depth (inches): No Depth (inches): Depth (inches): No Depth (inches):
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Expansely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe) Describe Recorded Data (stream gauge, minimum)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Popth (inches): No Depth (inches): No Depth (inches): Depth (inches): No Depth (inches): No Depth (inches): Depth (inches): No Depth (inches):
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Includes capillary fringe) Pescribe Recorded Data (stream gauge, minimum)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (inches): No Depth (i

	mountains, valleys, and Coast Region
Project/Site: Hart Ranch City/County: Siskiyou C	9. Sampling Date: 8/23/2010
Applicant/Owner: Hart Ranch State: CA Sam	poling Point
Applicant/Owner: Hart Ranch State: CA Sam Investigator(s): Section, Township, Range: Landform (hillslope, terrace, etc.):	45N 861 814 213
Landform (hillslope, terrace, etc.): Local relief (concave, conv	(ex none): COM LOW Slave (NV)
	VV 2 Salpes - NIA A A A
A STATE OF THE PARTY OF THE PAR	ANAN -1
Are carried of regarding to continuous on the site typical for this time of year? Ves V	0 //6 = 0 = 10 = 10 = 10
, or regulationally significantly disturbed? Are	*Normal Circumstances ===== V. V
Are Vegetation , Soil , or Hydrology NO naturally problematic?	(if needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point Hydrophytic Vegetation Present? Yes No	nt locations, transects, important features, e
Hydric Soil Present?	
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks:	
Diped &	400, 0 17
Nilegio	7510
VECETATION Management of	Ch
VEGETATION – Use scientific names of plants.	
Tree Stratum (Plot size:) Absolute Dominant Indicato	Dominance Test worksheet:
Tree Stratum (Plot size:)	
2.	That Are OBL, FACW, or FAC: (A)
3.	Total Number of Dominant
3.	Species Across All Strata: (B)
**	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	Matrice OBE, FACVE, OF FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)	
1	Prevalence Index worksheet:
	Total % Cover of: Multiply by:
	OBL species x 1 =
	FACW species x 2 =
	FAC species x 3 =
- Total O	FACU species x 4 =
lerb Stratum (Plot size: 1 2) = Total Cover	UPL species QO x5 = 450
medicas sativa 90 4 UPL	Column Totals: 90 (A) (B)
	Prevalence Index = B/A = 5,0
	Hydrophytic Vegetation Indicators:
	₹ 9
	1 - Rapid Test for Hydrophytic Vegetation
The state of the s	2 - Dominance Test is >50%
	3. Frevalence index is ₹3.0.
	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
	5 - Wetland Non-Vascular Plants ¹
	Problematic Hydrophytic Vegetation¹ (Explain)
90 = Total Cover	
pody Vine Stratum (Riot size:)	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic,
3 40 5 20	A CONTRACTOR OF THE CONTRACTOR
Total Course	Hydrophytic
Bare Ground in Herb Stratum	Vegetation Present? Yes No
	Present? Yes No
marks:	

	sameling Polar
SOIL Profile Description: (Describe to the de	epth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix	Redox Features
(inches) Color (moist) %	Color (moist) % Type¹ Loc² Texture Remarks
0-11 2542 6/2 100	<u>loam</u>
A 4 (50 (50) 100 1 1	loam
11-18 512 ABOVE 100	
¹ Type: C=Concentration D=Depletion R	M=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
	3.
Hydric Soil Indicators: (Applicable to	fill signal single construction 1
Histosol (A1)	Sandy Redox (S5) 2 cm Muck (A10) Stripped Matrix (S6) Red Parent Material (TF2)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
Black Histic (A3)	Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F2) Construction of the Carpt Matrix (F2) Construction of the Carpt Matrix (F2)
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11)	Depleted Matrix (F3)
Thick Dark Surface (A12)	Redox Dark Surface (F6) Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic
Restrictive Layer (if present):	Hydric Soil Present? Yes No
Type:	nyulic soll research
Depth (Inches):	
Remarks:	
	May a Manufacture of the
	noindicators
<u> </u>	
HYDROLOGY	
Wetland Hydrology Indicators:	
	ed; check all that apply) Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	ed; check all that apply) Water-Stained Leaves (B9) (except Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	ed; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Self Crust (B11) Self Crust (B11) Self Crust (B11) Self Crust (B10) Self Crust (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	ed; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
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4.40	2	
Project/Site: Hav+ Kanch	city/county: Siskiyou C	Sampling Date: 8/23/20110
Application with There is a series of the se	State: ('A' Samn	ling Point
Investigator(s): Morea Kabe	Soction Township David	CICN D C.3
Landform (hillslope, terrace, etc.):	Local relief (concave, conve	x, none): Chryslex Slone (%):
Confedient (EKIN).	Lat: 102 3134+1 Long: 41.6	89558 Datum: NAN 83
Soil Map Unit Name: 199 medf	by A Clay loam	NWI classification:
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes X No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrolo Are Vegetation , Soil , or Hydrolo	gy No significantly disturbed? Are	"Normal Circumstances" present? Yes X No
, Soir, or Hydroid	gy No naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	te map showing sampling poin	t locations, transects, important features, etc
1 11 11 6 16 16		
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No Is the Sampled Area w	ithin a Wetland? Yes No
Remarks:		
	ditch 1 and	and a sec or to the
	CITO Barria	NIXT TO altaxiation
VEGETATION - Use scientific names	of plante	
	41	Parties Partie
Tree Stratum (Plot size:)	Absolute Dominant Indicator <u>% Cover Species? Status</u>	
1.		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		Inat Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Denuglanas tuda
1		Prevalence Index worksheet:
2.		Total % Cover of: Multiply by: OBL species x 1 =
3.		F4044
4.		
5		7.5
and the same of th	= Total Cover	UPL species (1) x5 = 200
Herb Stratum (Plot size: M)	20	
Lactura solstialis		
Elymes Chymoides	30 Y UPL	Prevalence Index = B/A = 4,6
Light Ciginalays	10 Y FACU	the draw had a Marchall - 1 - 11
).	৮ কুটাটোলি ভাইকাইটাট	Hydrophytic Vegetation Indicators:
	An ar length in S	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
	TANK PART	4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants ¹
1	70	Problematic Hydrophytic Vegetation¹ (Explain)
Voody Vine Stratum (Plot size:	Total Cover	Indicators of hydric soil and wetland hydrology must
(Flot size:	L	be present, unless disturbed or problematic.
	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	the second second
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum _ 3	Total Covel	Vegetation
	1	Present? Yes No _N
emarks;		
		1

SOIL			attraction of Policies	1
Profile Description: (Describe to the dept	th needed to document the ind	icator or confirm the		
Depth Matrix	Redox Feat	ures	Texture	Remarks
(inches) Color (moist) %	Color (moist) %	Type¹ Loc²		
0-18 25 YEY12 100			. claylocur.	
		_		
		2	<u> </u>	
				
		.=-=		
¹ Type: C=Concentration, D=Depletion, RM=	=Reduced Matrix, CS=Covered o	r Coated Sand Grains	. ² Location: PL=Pore Lin	ing, M=Matrix.
Hydric Soil Indicators: (Applicable to all			dicators for Problematic I	lydric Soils³:
		,	2 cm Muck (A10)	
Histosol (A1) Histic Epipedon (A2)	Sandy Redox (\$5) Stripped Matrix (\$6)		Red Parent Material (TF2	
Black Histic (A3)	Loamy Mucky Mineral (F1) ((except MLRA 1)	Very Shallow Dark Surface	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	_	Other (Explain in Remark	s)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3) Redox Dark Surface (F6)		3Indicators of hydrophytic	vegetation and
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology must b	e present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or proble	ematic
Restrictive Layer (if present):		Hydric Soil Present	? Yes N	lo X
Type:		, riyana com ri toos		
Depth (Inches):		1	 	
Remarks:				
	Karian	necetors		J
	110 11.8	معديه بوطأ أن الموساع فيته		
UVDDOLOGY				
HYDROLOGY Wetland Hydrology Indicators:				
Primary Indicators (minimum of one required;	check all that apply)		condary Indicators (2 or mor Water-Stained Leaves (B9)	re required)
	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B	B9) (except	4A, and 4B)	(WILLY 1, 2,
Surface Water (A1)		<i>-</i>	Drainage Patterns (B10)	
	Sait Crust (BT 1)		Diginage Fatterns (D10)	
High Water Table (A2) Saturation (A3)	Salt Crust (B11) Aquatic invertebrates (B		Dry-Season Water Table (C2)
Saturation (A3) Water Marks (B1)	Aquatic invertebrates (B Hydrogen Sulfide Odor	(C1)	Dry-Season Water Table (I Saturation Visible on Aeria	C2) I Imagery (C9)
Saturation (A3) Water Marks (B1)	Aquatic invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres	(C1)	Dry-Season Water Table (C2) I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)	(C1) along Living	Dry-Season Water Table (Saturation Visible on Aeria	C2) I Imagery (C9)
Saturation (A3) Water Marks (B1)	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i	(C1) along Living on (C4)	Dry-Season Water Table (C Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3)	C2) I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6)	(C1) along Living on (C4) in Tilled	Dry-Season Water Table (C Saturation Visible on Aeria Geomorphic Position (D2)	C2) I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i	(C1) along Living on (C4) in Tilled	Dry-Season Water Table (C Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Solls (C6) Stunted or Stressed Pla	(C1) along Living on (C4) in Tilled ants (D1)	Dry-Season Water Table (C Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	(C1) along Living on (C4) in Tilled ants (D1)	Dry-Season Water Table (C Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	(C1) along Living on (C4) in Tilled ants (D1)	Dry-Season Water Table (C Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6)	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	(C1) along Living on (C4) in Tilled ants (D1)	Dry-Season Water Table (C Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	(C1) along Living on (C4) in Tilled ants (D1)	Dry-Season Water Table (Caturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (Frost-Heave Hummocks (I	I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction i Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	(C1) along Living on (C4) in Tilled ants (D1)	Dry-Season Water Table (C Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	(C1) along Living on (C4) in Tilled ants (D1)	Dry-Season Water Table (Caturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (Frost-Heave Hummocks (I	I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema Depth (inches): Depth (inches):	(C1) along Living on (C4) in Tilled ants (D1) arks) Wetland Hy	Dry-Season Water Table (I Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Frost-Heave Hummocks (I	I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema Depth (inches): Depth (inches):	(C1) along Living on (C4) in Tilled ants (D1) arks) Wetland Hy	Dry-Season Water Table (I Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Frost-Heave Hummocks (I	I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema Depth (inches): Depth (inches):	(C1) along Living on (C4) in Tilled ants (D1) arks) Wetland Hy	Dry-Season Water Table (I Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Frost-Heave Hummocks (I	I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema Depth (inches): Depth (inches):	(C1) along Living on (C4) in Tilled ants (D1) arks) Wetland Hy us inspections), if avail	Dry-Season Water Table (I Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Frost-Heave Hummocks (I	I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (includes capillary fringe) Yes No Describe Recorded Data (stream gauge, monit	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema Depth (inches): Depth (inches):	(C1) along Living on (C4) in Tilled ants (D1) arks) Wetland Hy us inspections), if avail	Dry-Season Water Table (I Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Frost-Heave Hummocks (I	I Imagery (C9)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (includes capillary fringe) Yes No Describe Recorded Data (stream gauge, monit	Aquatic invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema Depth (inches): Depth (inches):	(C1) along Living on (C4) in Tilled ants (D1) arks) Wetland Hy us inspections), if avail	Dry-Season Water Table (I Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (I Frost-Heave Hummocks (I	I Imagery (C9)

40.1-Dans	Si-Kin A	
Project/Site: ####################################	city/county: Siskiyou C	9.25 Sampling Date: 0/23/2010
	State: CA Samp	
Investigator(s): Invest	Section, Township, Range:	
Subregion (LRR): MLRA 22R	Local relief (concave, conve	x, none): C50 UEX Slope (%):
	cd ford Clay Dam cool	295 43 Datum: NAD 83
Are climatic / hydrologic conditions on the site	e typical for this time of year? Ves. V	NWI dassification: W/A
Are Vegetation, Soil, or Hyd		"Normal Circumstances" present? Yes X
Are Vegetation, Soil, or Hyd	rology NO naturally problematic?	(If needed, explain any answers in Remarks.)
		•
Hydrophytic Vegetation Present? Yes	site map showing sampling poin	t locations, transects, important features, et
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No Is the Sampled Area w	ithin a Wetland? Yes No
Remarks:	-ch	
011		
VEGETATION Line colontific norm		
VEGETATION - Use scientific nam		
Tree Stratum (Plot size:)	Absolute Dominant Indicator <u>% Cover Species? Status</u>	1
1	Operes Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata:(B)
4		Percent of Dominant Species That Are OBL, FACW, or FAC: /O(A/B)
		THE THE COLL, TACK, STACK,
Sapling/Shrub Stratum (Plot size:	= Total Cover	Prevalence Index worksheet:
1.	,	Total % Cover of: Multiply by:
2.		OBL species LO x 1 = /0
3.		FACW species x 2 =
l		FAC species x3 =
5		FACU species x 4 =
	= Total Cover	UPL species x 5 =
lerb Stratum (Plot size: WY)	(5)/ (08)	Column Totals: // (A) /O' (B)
· Znepaoplocius acut	Walo Y OBC	1.0
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
ь	ন মুটা ভাৰত বিষয়	1 - Rapid Test for Hydrophytic Vegetation
	has protected to be	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.0¹
•	1980 (Sec. 1985)	4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain)
	= Total Cover	
/oodv Vine Stratum (Plot lize:	Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	19 1/2 2 July 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Hydronhydie
0-	= Total Cover	Hydrophytic Vegetation
Bare Ground in Herb Stratum90		Present? Yes No
emarks:		
	ry open water	,
mope	ry open was	1 mourion
	6 band	

OIL			sampling Bulni 56
	the depth needed to document the in Redox Fe	ndicator or confirm the	absence of indicators.)
Depth Matrix (inches) Color (moist)	% Color (moist), %		Texture Remarks
	70 542416 10	M	clay com
)-18 2.54E412 9	10 3 4 K- 116 10		
			- <u>- </u>
		7====	
	ion, RM=Reduced Matrix, CS=Covered		
Hydric Soil Indicators: (Applicat	ole to all LRRs, unless otherwise not	ed.) inc	dicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10) Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3)	Stripped Matrix (S6) Loamy Mucky Mineral (F1)) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
Depleted Below Dark Surface Thick Dark Surface (A12)	(A11) Depleted Matrix (F3) Redox Dark Surface (F6)		³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7	7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or problematic
estrictive Layer (if present):			×
Type:		Hydric Soil Present	? Yes No
Depth (inches):		<u> </u>	· · · · · · · · · · · · · · · · · · ·
marks:		Mal.	
	Onech when	arrow ar	u in Oct
/DROLOGY	**)
Vetland Hydrology Indicators:		Soo	ondary Indicators (2 or more required)
rimary Indicators (minimum of one r	equired; check air that apply) Water-Stained Leaves		Water-Stained Leaves (B9) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, and 4	B)	4A, and 4B)
High Water Table (A2)	Salt Crust (B11)		Drainage Patterns (B10)
Saturation (A3)	Aquatic Invertebrates (Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor Oxidized Rhizospheres		Saturation Visible on Aerial Imagery (C9)
Sediment Deposits (B2)	Roots (C3)		Geomorphic Position (D2)
Drift Deposits (B3)	Presence of Reduced Recent Iron Reduction		Shallow Aquitard (D3)
Algal Mat or Crust (B4)	Soils (C6) Stunted or Stressed Pi	92000	FAC-Neutral Test (D5)
Iron Deposits (B5)	(LRR A)		Raised Ant Mounds (D6) (LRR A)
Surface Soil Cracks (B6)	Other (Explain in Rem	arks)	Frost-Heave Hummocks (D7)
inundation Visible on Aerial Image Sparsely Vegetated Concave Sur			
ield Observations: urface Water Present? Yes	No Depth (inches): 24	630	\checkmark
Vater Table Present? Yes	No Depth (inches):	Wetland Hyd	rology Present? YesX No
aturation Present?			
ncludes capillary fringe) Yes 17	No Depth (inches): e, monitoring well, aerial photos, previo	 ous inspections) if availa	ble:
Scribe Recorded Data (Stream gady	e, montoning went aenai photos, provid	and mapoonome, it areas	
marks:	<u> </u>		

O DETERMINA	ATION DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch	City/County Siskivou	8/22/2011
Applicant/Owner: Hart Ranch	States CA Communication	0. Sampling Date: 0/23/2016 Diling Point: 50 45 N R 5 W Sect 1, 2 + 3
Investigator(s):	Section Township Banco	ping Point:
Landform (hillslope, terrace, etc.):	Cection, Township, Range;	13N185W Sect 1,2+3
Subregion (LRR): MLRA 228	Local reflet (concave, convi	ex, none): COY JOY Slope (%): 2
Soil Map Unit Name: 189 MM		
Are climatic / hydrologic conditions on the site ty	pleat for this time of years year	NWI classification:
Are Vegetation Soil or Hydrol	provide for the control of the state of the	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrole	Are	"Normal Circumstances" present? Yes No
SUMMARY OF FINDINGS - Attach si	ite man showing sampling poin	t locations, transects, important features, et
Hydrophytic Vegetation Present? Yes	No V	t locations, transects, important features, et
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No Is the Sampled Area w	ithin a Wetland? Yes No
	No 🔼	
Remarks:		
	ditch bank	
	Chilen Dank	·
VEGETATION - Hoo polentific norman	-6-1	
VEGETATION - Use scientific names	of plants.	
Tree Stratum (Not size:)	Absolute Dominant Indicator	Dominance Test worksheet:
	% Cover Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC: (A)
		Total Number of Dominant
3.		Species Across All Strata: (B)
4,		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
2-15-101 1 21 1 21 1 2 1 2 1 2 1 2 1 2 1 2 1	= Total Cover	
Sapling/Shrub Stratum (Riot size:)		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x1=
3.		FACW species x2=
4.		FAC species x3=
5.		FACU species x 4 =
\mathred (mathred)	= Total Cover	
lerb Stratum (Plot size:	_	
Centoures astrinati	= 40 UPL 4	Column Totals: (A) (B)
LETTER SEVER	40 UPL 9	Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3,01
	2. M. S. 3. 1	A LI LAMINING ILITIAY IP 70'0
		4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants
1	4.44	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	
/oody Vine Stratum (Plot size;)	- I Old COVE	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic,
	A STATE OF THE STA	10 mm m m m m m m m m m m m m m m m m m
· · · · · · · · · · · · · · · · · · ·	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum	Total Cover	Vegetation 1
	1	Present? Yes No/\screen
emarks:		
Alfaing,		

SOIL		કુલાઈ શાંતિણ સ્થાતિ	150
Profile Description: (Describe to the	epth needed to document the indicator	or confirm the absence of indicators.)	•
Depth Matrix	Redox Features		Demode
(inches) Color (moist) %	Color (moist) % Type	Loc ² Texture	Remarks
		loam	
D-18 25 184/2 100	2	ICIONAL -	
			
	7 T	<u> </u>	
\$			
			
	7)		_
		<u> </u>	
_			
17 O-Consentiation DePopletion 5	RM=Reduced Matrix, CS=Covered or Coate	d Sand Grains. ² Location: PL=Pore Li	ning, M=Matrix.
		Indicators for Problematic	Undria Saile ³ :
Hydric Soil Indicators: (Applicable to	all LRRs, unless otherwise noted.)		nyunc sons .
	Sandy Redox (S5)	2 cm Muck (A10)	
Histosol (A1)	Stripped Matrix (S6)	Red Parent Material (TF2	2)
Histic Epipedon (A2)	Loamy Mucky Mineral (F1) (except	MLRA 1) Very Shallow Dark Surfa	ce (TF12)
Black Histic (A3)	Learny Claude Matrix (E2)	Other (Explain in Remark	(S)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		•
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	³ Indicators of hydrophytic	vegetation and
Thick Dark Surface (A12)	Redox Dark Surface (F6)	wetland hydrology must l	he present
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland nydrology must i unless disturbed or probl	onatic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or probl	emauc
Restrictive Layer (if present):			V
	Hydr	c Soil Present? Yes	No 🔨
Type:			
Depth (Inches):			
Remarks:			
Keiliaiks.	1	As a	
	M gN	dicators	
	t ia "i	とってのいのう	
	 		
HYDROLOGY			
			<u> </u>
Wetland Hydrology Indicators:		O des la diantes /2 or mo	ro required)
Wetland Hydrology Indicators:	ed; check all that apply)	Secondary Indicators (2 or mo	re required)
	Water-Stained Leaves (B9) (ex	cept Water-Stained Leaves (B9	ore required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (ex	cept Water-Stained Leaves (B9 4A, and 4B)	re required)) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements of the surface Water (A1)	Water-Stained Leaves (B9) (ex MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10)) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (ex MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table ((C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (ex MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table ((C2)
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Applicant/Owner: Hart Ranch Investigator(s): AMER RADE Landform (hillslope, terrace, etc.): +Cmark Subregion (LRR): MLRA 228 Soil Map Unit Name: 189 MCF Are climatic / hydrologic conditions on the site ty Are Vegetation , Soil , or Hydrologic Are Vegetation , Soil , or Hydrologic , or Hydrologic , Soil , or Hydrologic , or Hydrologic , or Hyd	Local relief (concave, converted: Lat: 122 372713 Long: 162 600 600 600 600 600 600 600 600 600 6	ing Point: 45N Sect 1,2+3 x, none): Slope (%): NWI classification: NAN 83 NWI classification: NAN 83 "Normal Circumstances" present? Yes X No (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach single Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No No Is the Sampled Area w	t locations, transects, important features, etc
Remarks:		
VEGETATION – Use scientific names Tree Stratum (Plot size:) 1. 2. 3 4.	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A) (B)
Sapling/Shrub Stratum (Plot size:) 1	= Total Cover = Total Cover V V PL	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FAC species x3 = FACU species x4 = UPL species x5 = 400 Column Totals: (A) Prevalence Index = B/A =
3	Acquires wi	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2. Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
Remarks:		

SOIL	needed to document the indicator or confirm the absence of Indicators.)
	Redox Features
Depth Matrix (inches) Color (moist), %	Color (moist) % Type¹ Loc² Texture Remarks
	Oam
D-18 25 424/2 100	TVM 997
	Reduced Matrix, CS=Covered or Coated Sand Grains. 2Location: PL=Pore Lining, M=Matrix.
¹Type: C=Concentration, D≂Depletion, RM=R	
Hydric Soil Indicators: (Applicable to all L	RRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :
-	Sandy Redox (S5) 2 cm Muck (A10)
Histosol (A1)	Stripped Matrix (S6) Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)
Thick Dark Surface (A12)	Redox Dark Surface (F6) *Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic
	<u> </u>
Restrictive Layer (If present):	Hydric Soil Present? Yes No
Type:	Hydric Soil Present? Yes No
Depth (inches):	
Remarks:	
ikni av	cotro
ikn/ on	cators
	cators
HYDROLOGY	cators
HYDROLOGY Wetland Hydrology Indicators:	
HYDROLOGY	neck all that apply) Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch	heck all that apply) Water-Stained Leaves (B9) (except Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1)	heck all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2)	heck all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
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HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Mater-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
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HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Meck all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
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A DETERMINA	TION DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: HAVERANCH	city/county: Siskiyou C	Sampling Date: 8/23/2011
Application owner. Letter Figure 1	Cinion II N Comm	
HILLOUIS CONTO, I WILLIAM IN TAIL IN TAIL IN	Section (Augustia Dense) ' I	
Landion in Indialoge, tellage, etc. i. Trail Tr	1 6 70 LOOK rollet (appears as	
Soil Map Unit Name: 180 Louie L	Mr.	Datum: NATIOS
Are climatic / hydrologic conditions on the site typ	rical for this time of year? Yes V	NWI classification:
Are Vegetation Soll or Hydrolog	OV NO cignificants district and	(If no, explain in Remarks.) "Normal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrolog	By No naturally problematic?	"Normal Circumstances" present? Yes
TOTTY ON	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	e man showing compling pain	t locations, transects, important features, e
	No No	t locations, transects, important features, e
Hydric Soil Present? Wetland Hydrology Present? Yes Yes	No is the Sampled Area w	ithin a Wetland? Yes No No
Remarks:		
,		
		OITCH
VEGETATION - Use scientific names	of plants.	
Trong Stratum	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Riot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		
2.		OBL species x 1 =
3.		7
4		
5.		FAC species x3 =
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 1772)	- Total Cover	UPL species x 5 =
1.		Column Totals: (A) (B)
2.		
3.		Prevalence index = B/A =
4.		Hydrophytic Vegetation Indicators:
5.	Service Control Control	1 - Rapid Test for Hydrophytic Vegetation
8.	Act more as	2 - Dominance Test is >50%
7.		3 - Prevalence Index is ≤3.0¹
3	(機工程)	4 - Morphological Adaptations ¹ (Provide supporting
9.		data in Remarks or on a separate sheet)
10.		5 - Wetland Non-Vascular Plants ¹
1.		Problematic Hydrophytic Vegetation¹ (Explain)
*	= Total Cover	3
Noody Vine Stratum (Plot size:)	- TOTAL COVE	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	į.	
2.	4.5	
	= Total Cover	Hydrophytic (1923)
6 Bare Ground in Herb Stratum		Vegetation
	1	Present? Yes No
Remarks:	Problematici Problematici	orupted of sever sever con con
MINGINS.	We will be	M. W. M. M.
~ V ~)~ (- Mes cha	WALL SOLLE
no or	DO NAME OF	COOL VIDE
· · · · · · · · · · · · · · · · · · ·	* (U)	(2K) 25 1'1

SOIL		414	Secretaline Ro	1 ta
Profile Description: (Describe to the d	epth needed to document the in Redox Fea	idicator or confil atures	m the absence of indicator	5.]
Depth Matrix (inches) Color (moist) %	Color (moist) %	Type'	Loc ² Texture	Remarks
D-12 2,5426/2 10,			oam	
<u> </u>	2 2 2 6 8		PL loams	20Å
0-16 2.54R613 90	DAFILE OF		TO TOWN TO THE	- Clas
	·		<u> </u>	
			·	
	<u> </u>			
				
<u> </u>			 	
		ar Castod Cond	Grains 21 acation: PI =Po	re Lining, M=Matrix.
¹ Type: C=Concentration, D=Depletion, F				
Hydric Soil Indicators: (Applicable to Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2)	(except MLRA 1	Other (Explain in Re	(TF2) Surface (TF12) marks) shytic vegetation and sust be present,
			V	
Restrictive Layer (if present):		Hydric Soil P	resent? Yes	No
Type: Depth (Inches):		1.,2		
emarks:				
Wetland Hydrology Indicators: Primary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3)	ed; check all that apply) Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor	B) (B13)	Secondary Indicators (2 of Water-Stained Leaves 4A, and 4B) Drainage Patterns (B' Dry-Season Water Ta	s (B9) (MLRA 1, 2, 10) ble (C2)
Water Marks (B1)	Oxidized Rhizospheres	s along Living		
Sediment Deposits (B2)	Roots (C3)		Geomorphic Position	
Drift Deposits (B3)	Presence of Reduced		Shallow Aquitard (D3))
Algal Mat or Criet (R4)	Recent Iron Reduction Soils (C6)	I KI T I ISIOO	FAC-Neutral Test (D5	5)
Algal Mat or Crust (B4)	Stunted or Stressed Pl	lants (D1)		
Iron Deposits (B5)	(LRR A)		Raised Ant Mounds (D6) (LRR A)
Surface Soil Cracks (B6)	Other (Explain in Rem	anks)	Frost-Heave Hummon	(טו)
Inundation Visible on Aerial Imagery (E Sparsely Vegetated Concave Surface	(B8)			
				
Field Observations: Surface Water Present? Yes	No Depth (inches):	150		**
	No Depth (inches):	Wetla	nd Hydrology Present?	Yes 🗘 No _
_				
Saturation Present?				
(includes capillary fringe) Yes	No Depth (inches):		if modification	
(includes capillary fringe) Yes		ous inspections),	if available:	
		ous inspections),	if available:	
(includes capillary fringe) Yes		ous inspections),	if available:	
(includes capillary fringe) Yes i lescribe Recorded Data (stream gauge, m		ous inspections),	if available:	

Investigator(s): Landform (hillslope, terrace, etc.): Subregion (LRR): MLRA 228 Soil Map Unit Name: Are climatic / hydrologic conditions on the site ty Are Vegetation Soil The Control of the Co	Lat: 122.372318 Long: 41.4 Loam Applical for this time of year? Yes X N	rolling Point: 176 45 N R S W Sect 1, 2 + 3 /ex, none): C W 16 N Signe (%):
SUMMARY OF FINDINGS - Attach s Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes Yes	No Is the Sampled Area	nt locations, transects, important features, within a Wetland? Yes No
Remarks: VEGETATION – Use scientific names	Ou't-ch	bank affalfa field
Iree Stratum (Plot size:) 1 2 3 4 Sapling/Shrub Stratum (Plot size:) 2 6 1	Absolute Dominant Indicato % Cover Species? Status = Total Cover = Total Cover	
pody Vine Stratum (Plot size:)	= Total Cover	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No

OIL			इस्तार्थात्व हर्णा	1-6-0
Profile Description: (Describe to the	lepth needed to document the l	indicator or confirm	n the absence of indicators.)
Depth Matrix	Redox re	eatures	oc² Texture	Remarks
(inches) Color (moist) %		Type I	Loam	
1-10 2,5 YRW210	o			
10-18 2.5 48/510	<u> </u>		loam_	
0-10 010	<u> </u>			
		-	•	
				
				
¹ Type: C=Concentration, D=Depletion,	PM-Peduced Matrix CS=Covered	- — — — d or Coated Sand G	rains. ² Location: PL=Pore	Lining, M=Matrix.
			Indicators for Problema	tic Hydric Soils ³ :
Hydric Soil Indicators: (Applicable t		oted.)		de riyano como i
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10) Red Parent Material (TE2)
Histic Epipedon (A2)	Stripped Matrix (S6)			rface (TE12)
Black Histic (A3)	Loamy Mucky Mineral (F1		Other (Explain in Ren	narks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	5)	Office (Exhight III (G))	·-··-/
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Redox Dark Surface (F6)		3Indicators of hydroph	vtic vegetation and
Thick Dark Surface (A12)	Depleted Dark Surface (F6)	7)	wetland hydrology mu	ist be present,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	')	unless disturbed or pr	roblematic
Samby Gleyed Matrix (34)	Trodox Bap, data (1. 5)			
estrictive Layer (if present):				X
		Hydric Soil Pr	esent? Yes	_ No
Depth (inches):				
/DROLOGY				
Vetland Hydrology Indicators: rimary Indicators (minimum of one requi	red: check all that apply)		Secondary Indicators (2 or	more required)
rimary indicators (minimum or one requ	Water-Stained Leave	s (B9) (except	Water-Stained Leaves	(B9) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, and	4B)	4A, and 4B)	••
High Water Table (A2)	Salt Crust (B11)		Drainage Patterns (B16	3)
Saturation (A3)	Aquatic Invertebrates	s (B13)	Dry-Season Water Tab) 1: (00)
	Hydrogen Sulfide Od	lor (C1)	\ \ \ \ \ \ \ \ \ \ \ \ \ \	ile (C2)
vvater marks (B1)	Hydrogen admide ad-	ior (O1)	Saturation Visible on A	ile (C2)
Water Marks (B1)	Oxidized Rhizosphere	es along Living	 -	ite (C2) erial Imagery (C9)
Sediment Deposits (B2)	Oxidized Rhizosphero	es along Living	Geomorphic Position (ite (C2) erial Imagery (C9)
	Oxidized Rhizosphere Roots (C3) Presence of Reduced	es along Living d Iron (C4)	 -	ite (C2) erial Imagery (C9)
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction	es along Living d Iron (C4)	Geomorphic Position (I	ole (C2) erial Imagery (C9) D2)
Sediment Deposits (B2)	Oxidized Rhizosphero Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6)	es along Living d Iron (C4) on in Tilled	Geomorphic Position (In Shallow Aquitard (D3) FAC-Neutral Test (D5)	ale (C2) erial Imagery (C9) D2)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed	es along Living d Iron (C4) on in Tilled	Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	erial Imagery (C9) D2) (b) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Oxidized Rhizosphero Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6)	es along Living d Iron (C4) on in Tilled Plants (D1)	Geomorphic Position (In Shallow Aquitard (D3) FAC-Neutral Test (D5)	erial Imagery (C9) D2) (b) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Oxidized Rhizosphero Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Rer	es along Living d Iron (C4) on in Tilled Plants (D1)	Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	erial Imagery (C9) D2) (b) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Oxidized Rhizosphero Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Rer	es along Living d Iron (C4) on in Tilled Plants (D1)	Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	erial Imagery (C9) D2) (b) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface	Oxidized Rhizosphero Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Rer	es along Living d Iron (C4) on in Tilled Plants (D1)	Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	erial Imagery (C9) D2) (b) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface	Oxidized Rhizosphero Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Ref	es along Living d Iron (C4) on in Tilled Plants (D1)	Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	ole (C2) erial Imagery (C9) D2) H6) (LRR A) ks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes	Oxidized Rhizosphero Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Rer (B7) (B8) Depth (inches):	es along Living d Iron (C4) on in Tilled Plants (D1) marks)	Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummod	erial Imagery (C9) D2) (b) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes	Oxidized Rhizosphero Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Ref	es along Living d Iron (C4) on in Tilled Plants (D1) marks)	Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummod	ole (C2) erial Imagery (C9) D2) H6) (LRR A) ks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface ield Observations: Surface Water Present? Ves Vater Table Present? Saturation Present?	Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Ref (B8) Depth (inches): Depth (inches):	es along Living d Iron (C4) on in Tilled Plants (D1) marks)	Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummod	ole (C2) erial Imagery (C9) D2) H6) (LRR A) ks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface ield Observations: Surface Water Present? Ves Vater Table Present? Ves Saturation Present? Includes capillary fringe) Ves	Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Ref (B8) Depth (inches): Depth (inches):	es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetlar	Geomorphic Position (In Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (Dage of the Prost-Heave Hummodal (Dage of the Prost-Heave (ole (C2) erial Imagery (C9) D2) H6) (LRR A) ks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface ield Observations: Surface Water Present? Ves Vater Table Present? Saturation Present?	Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Ref (B8) Depth (inches): Depth (inches):	es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetlar	Geomorphic Position (In Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (Dage of the Prost-Heave Hummodal (Dage of the Prost-Heave (ole (C2) erial Imagery (C9) D2) H6) (LRR A) ks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface ield Observations: iurface Water Present? Yes Vater Table Present? Yes staturation Present? Yes includes capillary fringe)	Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Ref (B8) Depth (inches): Depth (inches):	es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetlar	Geomorphic Position (In Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (Dage of the Prost-Heave Hummodal (Dage of the Prost-Heave (ole (C2) erial Imagery (C9) D2) H6) (LRR A) ks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface ield Observations: Surface Water Present? Vater Table Present? Vater Table Present? Vater Table Present? Saturation Present? includes capillary fringe) Yes	Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Ref (B8) Depth (inches): Depth (inches):	es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetlar	Geomorphic Position (In Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (Dage of the Prost-Heave Hummodal (Dage of the Prost-Heave (ole (C2) erial Imagery (C9) D2) H6) (LRR A) ks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface ield Observations: surface Water Present? Yes Vater Table Present? Yes caturation Present? Yes includes capillary fringe) Yes scribe Recorded Data (stream gauge, research)	Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Ref (B8) Depth (inches): Depth (inches):	es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetlar	Geomorphic Position (In Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (Dage of the Prost-Heave Hummodal (Dage of the Prost-Heave (ole (C2) erial Imagery (C9) D2) H6) (LRR A) ks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface ield Observations: surface Water Present? Yes Vater Table Present? Yes caturation Present? Yes includes capillary fringe) Yes scribe Recorded Data (stream gauge, research)	Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Ref (B8) Depth (inches): Depth (inches):	es along Living d Iron (C4) on in Tilled Plants (D1) marks) Wetlar	Geomorphic Position (In Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (Dage of the Prost-Heave Hummodal (Dage of the Prost-Heave (ole (C2) erial Imagery (C9) D2) H6) (LRR A) ks (D7)

. 0		dantaris, vancys, and coast Region
Project/Site: HAVE KANCH	city/county: Siskiyou a	9. Sampling Date: 8/23/2016
Applicant/Owner: Hart Ranch	State: (A Samp	line Point
Investigator(s): Andrea Rabe		45N. K5W Sect 1,2+3
Landform (hillislope, terrace, etc.): hillis	Local relief (concave, conve	ox, none): CONY X Slope (%):
Subregion (LRR): NILRA ZZB		SIND STORE NAME &
Soil Map Unit Name: 189 words	ford classican cool	NWI classification:
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes X No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrok	Pgy No significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydroic	pgy 100 naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach si	to man abouting something a	
1.30.05.13.0 1.030mmett 1.000lift 1.03	No Silving sampling poin	t locations, transects, important features, etc
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No Is the Sampled Area w	ithin a Wetland? Yes No \
Remarks:		
	an Cal	
	UM TIEVE	
VEGETATION - Use scientific names	of plants	
\		Danis Trade Laboratoria
<u>Tree Stratum</u> (Plot size:)	Absolute Dominant Indicator <u>% Cover Species? Status</u>	Dominance Test worksheet: Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		(AB)
Sapling/Shrub Stratum (Plot size:	= Total Cover	Description of Index we shall be a
1.		Prevalence Index worksheet:
2.		Total % Cover of: Multiply by:
3.		OBL species x1 =
4.		FAC species x2 =
5.		FAC species x 3 =
. 1. 7.	= Total Cover	
Herb Stratum (Plot size: 1 M/2)	100 11 110	100 (50)
medicago sativa	100 4 UPC	Column Totals: (A) 500 (B)
		Prevalence index = B/A =
	- grante - specials	Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50% 3 - Prevalence Index is ≤3,01
	() () ()	4 - Morphological Adaptations ¹ (Provide supporting
		data in Remarks or on a separate sheet)
0		5 - Wetland Non-Vascular Plants ¹
1,		Problematic Hydrophytic Vegetation ¹ (Explain)
/oody Vine Stratum (Plot size:)	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		4.7
	A Company of the Comp	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation
	. }	Present? Yes No
emarks:		
anding,		
		1

SOIL	Saraolingi elala (S
Profile Description: (Describe to the	septh needed to document the indicator or confirm the absence of indicators.)
Depth Matrix	Redox Features
(inches) Color (moist) %	Color (moist) % Type' Loc' Texture Remarks
D-18 2,548-6/3 100	Clausoam
	RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 2Location: PL=Pore Lining, M=Matrix.
	1
Hydric Soil Indicators: (Applicable to	
Histosol (A1)	Sandy Redox (S5) 2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6) Red Parent Material (TF2)
Black Histic (A3)	Loarny Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Loarny Gleved Matrix (F2) Other (Explain in Remarks)
Hydrogen Sulfide (A4)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3) Redox Dark Surface (F6) Redox Dark Surface (F6) 3 Indicators of hydrophytic vegetation and
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) Depleted Dark Surface (F7) wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic
Oblidy Gleyed Matrix (04)	
Restrictive Layer (if present):	
Type:	Hydric Soil Present? Yes No
Depth (inches):	
Remarks:	
, 1 .	
noinkia	'N'111\S
HYDROLOGY	
Wetland Hydrology Indicators:	
	red; check all that apply) Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	red; check all that apply) Water-Stained Leaves (B9) (except Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements Surface Water (A1)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements Surface Water (A1) High Water Table (A2)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements Surface Water (A1) High Water Table (A2) Saturation (A3)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requirements Surface Water (A1) High Water Table (A2)	ed; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
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		flountains, Valleys, and Coast Region
Project/Site: HAVA Kanch	city/county: Siskiyou Co	8/22/2-4
Investigator(s): Andréa Rabe:	State: CA Samp	ling Point:
Landform (hillslope, terrace, etc.):	Control of control of control of	DN185W Sect 1,2+3
Subregion (LRR): MLRA 22B	Late 100 1308 Lang. Child	x, none): Slope (%):
Soil Map Unit Name:	100.50 1050 Long. 71.10	7333 Datum: NAN 63
Are Vegetation	Dical for this time of year? Yes V	NWI classification:
Are Vegetation , Soil , or Hydrold	NO NO significantly dieturbed?	(If no, explain in Remarks.) "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrolo	99 NO naturally problematic?	Normal Circumstances" present? Yes No
		The state of the s
SUMMARY OF FINDINGS - Attach si	te map showing sampling point	t locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes		. 4
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	No is the Sampled Area wi	ithin a Wetland? Yes No
Remarks:		
	11 -4	
Q	itch	
VEGETATION - Use scientific names	of plants.	
Trac Stratum (7)	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot Size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across Ali Strata; (B)
4.		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Statum (Plot size:	= Total Cover	
Sapling/Shrub Stratum (Plot size:) 1		Prevalence Index worksheet:
2.		Total % Cover of: Multiply by:
3.		OBL species x1 =
4.		FACW species x 2 =
5.		FAC species x3 =
		FACU species x 4 =
Herb Stratum (Plot size: 1 m2)	= Total Cover	UPL species x 5 =
1. 1	P	Column Totals: (A) (B)
2.		
3.		Prevalence Index = B/A =
		Abelian hadio Manatallan I. di
	+ \$75.00 kill 56.060	Hydrophytic Vegetation Indicators:
	As az leneszá lelár	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
	(May 1871)	A LICABIOLOG ILIOEY IS 22'O
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
0		5 - Wetland Non-Vascular Plants¹
1		Problematic Hydrophytic Vegetation¹ (Explain)
•	FD = Total Cover	¹Indicators of hydric soil and wetland hydrology must
Voodv Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
	A Company of the Company	Line and the second sec
S	= Total Cover	Hydrophytic Vegetation
Bare Ground in Herb Stratum	か	Present? Yes No
	0	
emarks: no regioner mass	and all	ACC
ON NEDITALITIES	Da-Chabibrupe	CI. Saller.
110 DOGK 45	no ree ve	1. (,)
	Y) (CANDON 3	

OIL				ইনি হোৱাবাড়িন <u>কিটা</u> টা	19a
Profile Description: (Describe to the	depth needed to docum	nent the indicato	or confirm the	absence of indicators.)	
Depth Matrix		Redux realures		Texture	Remarks
(inches) Color (moist) 9		<u>% Ty</u>	oe' Loc²	· -	(KOITIGI NO
0-10 2,542/2/10	00			Want	
12-18 2542602 9	0 548416	10		Sandul	an
Q=10 = 13 = 3 = 3	341			.	
					
					
		0-0-0-0			
	==\)				
				2	
¹ Type: C=Concentration, D=Depletion	, RM=Reduced Matrix, CS	S=Covered or Coa	ted Sand Grains.	² Location: PL=Pore	
Hydric Soil Indicators: (Applicable	to all LRRs, unless othe	rwise noted.)	In	dicators for Problemati	c Hydric Soils³:
	X Sandy Redox (S			2 cm Muck (A10)	
Histosol (A1) Histic Epipedon (A2)	Stripped Matrix			Red Parent Material (T	F2)
Black Histic (A3)	Loamy Mucky M	linerai (F1) (exce _l	ot MLRA 1)	Very Shallow Dark Sur	face (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed N			Other (Explain in Rema	arks)
Depleted Below Dark Surface (A1	1) Depleted Matrix			3Indicators of hydrophy	tic vegetation and
Thick Dark Surface (A12)	Redox Dark Sur Depleted Dark S			wetland hydrology mus	st be present,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Depressi			unless disturbed or pro	blematic
Oarldy Cicyca Matrix (5.1)					
Restrictive Layer (if present):				? Yes X	No
Type:		Hyd	iric Soli Present	7 Tes	
Depth (inches):	<u> </u>				
emarks:	1		A S A Section		
. (0	MAY July	A Jack	1-16-	1 not	
Depth (inches):	phech	divhen		mir Oct	
170000				j	
HYDROLOGY	•				
Wetland Hydrology Indicators:			- Con	condary Indicators (2 or n	nore required)
Primary Indicators (minimum of one req	uired; check all that apply) ad Lagues (BO) (s		Water-Stained Leaves (I	B9) (MLRA 1, 2,
V = 4	Water-Stain	ed Leaves (B9) (6 4A, and 4B)	xcept	4A, and 4B)	20, (0.12.1.1.1.7.1.7.1.7.1.7.1.7.1.7.1.7.1.7.
X Surface Water (A1) X High Water Table (A2)	Salt Crust (Drainage Patterns (B10))
Saturation (A3)		ertebrates (B13)		Dry-Season Water Table	e (C2)
Water Marks (B1)	Hydrogen S	ulfide Odor (C1)		Saturation Visible on Ae	rial Imagery (C9)
_ ,,,		nizospheres along	Living	Geomorphic Position (D	2)
Sediment Deposits (B2)	Roots (C3)	f Dadward Iron (C		Shallow Aquitard (D3)	· -)
Drift Deposits (B3)		f Reduced Iron (C Reduction in Tille		Oligion ridorato (20)	
Alex Motor Crust (R4)	Soils (C6)	Reduction in Time	,	FAC-Neutral Test (D5)	
Algal Mat or Crust (B4)	Stunted or s	Stressed Plants (I	O1) —		
fron Deposits (B5)	(LRR A)		·	Raised Ant Mounds (D6	6) (LRR A) - (DZ)
Surface Soil Cracks (B6)		ain in Remarks)		Frost-Heave Hummocks	s (D7)
Inundation Visible on Aerial Imagery	(B7)				
Sparsely Vegetated Concave Surface	ce (B8)				
Field Observations:					
Surface Water Present? Yes	No Depth (inches): (OIV			es X No _
Water Table Present? Yes	No Depth (inches		Wetland Hye	drology Present? You	es No _
Saturation Present?			}		
(includes capillary fringe) Yes	No Depth (inches		1		
Describe Recorded Data (stream gauge,	monitoring well, aerial ph	otos, previous ins	pections), if avail	apie:	
		.			
Remarks:					

	A TON DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch	Girlount Sickillan C	8/22/2-4
Applicant/Owner: Hart Ranch	State: (A) Samp	ling Point:
Landform (hillslope, terrace, etc.):	Local relief (concave, conve	ex, none): Slope (%):
	Lat. 1942. JOHNEST Long: 471./.	X TOLON Datum
The same of the sa	CICH IOF IDE TIME OF VEGET VAN V. N.	Ale
THE TOP TOP TO THE PROPERTY OF	ULIV INIIN SIMPINOMININI MICHININAMI A	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrold	Pgy NO naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach of	No man ale au tr	
Hydrophytic Vegetation Present? Yes	No X	t locations, transects, important features, et
Hydric Soil Present?	(i) A3-	1
Wetland Hydrology Present?	No Z	Millia Averagid 1 162 NO
Remarks:		
	n. 111	
	ag field ditch b	20 M/r
		2501 118
VEGETATION - Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plotsize:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4		Percent of Dominant Species
¥.		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratura (Plot size:)		Prevalence Index worksheet:
1		Total % Cover of: Multiply by:
2,		OBL species x1 =
3		5400
i		FACW species x2 =
ò		FAC species x3 =
	= Total Cover	FACU species x 4 =
lerb Stratum (Plot size: 1 m Z)		UPL species $90 \times 5 = 40$
- medicagn sativa	90 11 100	Column Totals: (A) 4 (C)(B)
		Prevalence Index = B/A =
		Madronhado Mondado I. II.
	+ 475 TV - 745 FF	Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	- Selson files	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
). -		5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation ¹ (Explain)
foody Vine Stratum (Not size:)	Total Cover	Indicators of hydric soil and wetland hydrology must
(Plot size;)	1	be present, unless disturbed or problematic.
		14 × 4 × 4 × 4 × 4 × 4 × 4 × 4 × 4 × 4 ×
	And the second	The second secon
Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation
Bare Ground in Herb Stratum	1	Present? Yes No
	1	
emarks:		
		1
		1
		i

SOIL	<u></u>		સુરા માના જેવા છે.	196
Profile Description: (Describe to the	depth needed to document the in	ndicator or con	firm the absence of indicators.)	
Depth Matrix	Redox.Fe	atures		Remarks
(inches) Color (moist), %	Color (moist) %	Type	Loc ² Texture	Kerriarks
0-11 2,54842 16	00		loam	
		-	100	
11-18 2.542613 10				
				
				
				*1
			d Grains. ² Location: PL=Pore Li	ning M-Matriy
¹ Type: C=Concentration, D=Depletion,	RM≈Reduced Matrix, CS=Covered	or Coated San	d GrainsLocation: PL=Pote Li	Tillig, IVI-IVIAUIA.
			Indicators for Problematic	Hydric Solls ³ :
Hydric Soil Indicators: (Applicable	to all LRRs, unless otherwise no	(ea.)		
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (TF	2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA	(1) Very Shallow Dark Surfa	ice (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Remar	ks)
Depleted Below Dark Surface (A1				
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophyti	c vegetation and
Pandy Mysky Mineral (S1)	Depleted Dark Surface (F	7)	wetland hydrology must	be present,
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	'/	unless disturbed or prob	lematic
Sandy Gleyed Matrix (S4)				
		1		\ \ \
Restrictive Layer (if present):			Present? Yes	No X
Type:		Hydric Soil	Present? 165	
Depth (inches):				
emarks:				
	noindic	O(10 s		
YDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicators (2 or me	ore required)
Primary Indicators (minimum of one requ	ifred; check all that apply)	(DO) (sugaré	Water-Stained Leaves (B	9) (MLRA 1, 2,
	Water-Stained Leaves	e (Ba) (excebr	4A, and 4B)	-, (
Surface Water (A1)	MLRA 1, 2, 4A, and 4	(8	Drainage Patterns (B10)	
High Water Table (A2)	Sait Crust (B11)	(D40)	Dry-Season Water Table	(C2)
Saturation (A3)	Aquatic Invertebrates	(B13)	Saturation Visible on Aeri	al Imanery (C9)
Water Marks (B1)	Hydrogen Sulfide Odd		Saturation visible on Aen	ai iiiagai y (oo)
-	Oxidized Rhizosphere	es along Living	One-marship Resident (D2)	`
Sediment Deposits (B2)	Roots (C3)		Geomorphic Position (D2	,
Drift Deposits (B3)	Presence of Reduced	itron (C4)	Shallow Aquitard (D3)	
,	Recent Iron Reduction	n in Tilled		
Algal Mat or Crust (B4)	Soils (C6)		FAC-Neutral Test (D5)	
	Stunted or Stressed F	Plants (D1)		0 DD 41
Iron Deposits (B5)	(LRR A)		Raised Ant Mounds (D6)	(LRK A)
Surface Soil Cracks (B6)	Other (Explain in Ren	narks)	Frost-Heave Hummocks	(U7)
Inundation Visible on Aerial Imagery		•		
Sparsely Vegetated Concave Surface	e (B8)			
_ spaisely vegetated contains contain	- \/			
Field Observed	. 4			
Field Observations:	No. X Double (Inches):	ţ		×
Surface Water Present? Yes	No Depth (inches):	W/a	tland Hydrology Present? Yes	No 🔼
Water Table Present? Yes	No Depth (inches):	we	uning it fut or old it is south.	
Saturation Present?		į		
(includes capillary fringe) Yes	No Depth (inches):		N. M. and J. Liber	
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, prev	ious inspections	s), ir avaliabie:	
Remarks:				<u></u>
Ciliains.	a.	11 3	*	
Gildino.	W	ikari'c	Catal	
GIIIBINO.	N	ikwi'c	catos	

Project/Site: HARACH State: CA Sar Investigator(s): HARACH Section, Township, Range: Landform (hillslope, terrace, etc.): HEYYOCE Local relief (concave, cor Subregion (LRR): MLRA 22R Lat: 132 3700/5Long: 41.4 Soil Map Unit Name: 189 Mr Africa (or this time of year? Yes Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation Soil or Hydrology No significantly disturbed? A Are Vegetation Soil or Hydrology No naturally problematic? SUMMARY OF FINDINGS – Attach site map showing sampling po Hydrology Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Sis the Sampled Area Wetland Hydrology Present? Yes No Sis the Sampled Area Presents: Project/Site: A Sar Charach Site (CA) Sate: CA Sar Charach Site (CA) Sate: CA Sat	rolling Point:
Investigator(s): Another Kone Section, Township, Range: Landform (hillslope, terrace, etc.): Subregion (LRR): MLRA 22R Lat: Another Concave, core Subregion (LRR): MLRA 22R Lat: Another Concave, core Subregion (LRR): Are climatic / hydrologic conditions on the site typical for this time of year? Yes X are Vegetation Are Vegetation Soil or Hydrology No significantly disturbed? A re Vegetation Soil or Hydrology No naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling por Hydrology Present? Yes No X is the Sampled Area Wetland Hydrology Present? Yes No X is the Sampled Area Remarks: VEGETATION - Use scientific names of plants.	rolling Point:
Subregion (LRR): MLRA 22B Lat: 32,320/5Long: 41, Soil Map Unit Name: 189 Meditor (NAME) 190 Meditor (NAME) 1	NWI classification: NO (If no, explain in Remarks.) The "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) Int locations, transects, important features, explain a Wetland? Wetland? No (If needed, explain any answers in Remarks.)
Subregion (LRR): MLRA 22B Lat: 32,320/5Long: 41, Soil Map Unit Name: 189 Meditor (NAME) 190 Meditor (NAME) 1	NWI classification: NO (If no, explain in Remarks.) The "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) Int locations, transects, important features, explain a Wetland? Wetland? No (If needed, explain any answers in Remarks.)
Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? Yes X Are Vegetation Soil or Hydrology No significantly disturbed? A Are Vegetation Soil or Hydrology No naturally problematic? SUMMARY OF FINDINGS – Attach site map showing sampling po Hydrophytic Vegetation Present? Yes No X Is the Sampled Area Wetland Hydrology Present? Yes No X Is the Sampled Area Remarks: VEGETATION – Use scientific names of plants.	NWI classification: NO (If no, explain in Remarks.) re "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) int locations, transects, important features, established within a Wetland? Yes No
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X Are Vegetation	NWI classification: No (If no, explain in Remarks.) re "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) int locations, transects, important features, et within a Wetland? Yes No
Are Vegetation, Soil, or Hydrology No significantly disturbed? A Are Vegetation, Soil, or Hydrology No naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling po Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Remarks: VEGETATION - Use scientific names of plants.	No (If no, explain in Remarks.) re "Normai Circumstances" present? Yes No (If needed, explain any answers in Remarks.) int locations, transects, important features, er within a Wetland? Yes No
Are Vegetation, or Hydrology NO naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling po Hydrophytic Vegetation Present? Yes No	re "Normai Circumstances" present? Yes No (If needed, explain any answers in Remarks.) int locations, transects, important features, et within a Wetland? Yes No
SUMMARY OF FINDINGS – Attach site map showing sampling po Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Wetland Hydrology Present? Remarks: VEGETATION – Use scientific names of plants. Absolute Degicant Indicate	(If needed, explain any answers in Remarks.) int locations, transects, important features, entitle within a Wetland? Yes No
SUMMARY OF FINDINGS – Attach site map showing sampling po Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Yes	int locations, transects, important features, environment within a Wetland? Yes No
Wetland Hydrology Present? Remarks: VEGETATION – Use scientific names of plants. Absolute Demicrat Indicate	within a Wetland? Yes No
Wetland Hydrology Present? Remarks: VEGETATION – Use scientific names of plants. Absolute Demicrat Indicate	within a Wetland? Yes No
Remarks: VEGETATION – Use scientific names of plants. Absolute Dominant Indian	
VEGETATION – Use scientific names of plants. Absolute Demicrat Indian	
VEGETATION - Use scientific names of plants.	
VEGETATION - Use scientific names of plants.	
Absolute Dominant Indiana	
Absolute Dominant Indiana	
Absolute Dominant Indicat	
	Dominance Test worksheet:
Tree Stratum (Plot size:) % Cover Species? Status	I MANUEL OF DOLLMARK SUBCRES
	That Are OBL, FACW, or FAC: (A)
	Total Number of Dominant
	Species Across All Strata: (B)
	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	(86)
apling/Shrub Stratum (Plot size:	Denuniana la denominata de
1 101 0120.	Prevalence Index worksheet:
	Total % Cover of: Multiply by:
	OBL species x1 =
	FACW species x 2 =
	FAC species x 3 =
= Total Cover	FACU species <u>SO</u> x4= <u>200</u>
arb Stratum (Plot size: 1976)	UPL species <u>20</u> x 5 = <u>100</u>
Elymus elymoldus 50 Y FAC	Column Totals: PO (A) 300 (B)
Bramus Lectorum 20 VUPL	Prevalence Index = B/A = 4/3
Poa secunda & N Fly	Lievaletice ludex = B/A =
	Hydrophytic Vegetation Indicators:
Figure 4 Mary 1	7 6
is a soft as	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
	3 - Prevalence index is ≤3,01
· · · · · · · · · · · · · · · · · · ·	4 - Morphological Adaptations¹ (Provide supporting
	data in Remarks or on a separate sheet)
	5 - Wetland Non-Vascular Plants
	Problematic Hydrophytic Vegetation¹ (Explain)
70 = Total Cover	¹ Indicators of hydric soil and wetland hydrology must
ody Vine Stratum (Plot size:)	be present, unless disturbed or problematic,
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
= Total Cover	Hydrophytic Vegetation
Bare Ground in Herb Stratum	Present? Yes No
narks:	
	İ

SOIL	st	nator or confirm the	absence of indicators.)
Profile Description: (Describe to the dep	otn needed to document the indicate Redox Featu	res	
Depth Matrix (inches) Color (moist) %	Color (moist) %	Type Loc2	Texture Remarks
0-18 25/24/200			chu loam
<u>0-18</u> 03/12 11000			
•		92-2-2-3	<u> </u>
		-	
			2
¹ Type: C=Concentration, D=Depletion, RM	=Reduced Matrix, CS=Covered or	Coated Sand Grains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to a	II I RRs. unless otherwise noted.	.) fr	idicators for Problematic Hydric Soils ³ :
		•	2 cm Muck (A10)
Histosol (A1)	Sandy Redox (S5) Stripped Matrix (S6)		Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3)	Loamy Mucky Mineral (F1) (e	xcept MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	_	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		g, ,, , , , , , , , , , , , , , , , , ,
Thick Dark Surface (A12)	Redox Dark Surface (F6)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		uriless distalbed of provinces
Destruction Leves (if propert):			
Restrictive Layer (if present):		Hydric Soll Presen	t? Yes No X
Type:		11,000000000000000000000000000000000000	
Depth (Inches):			
Remarks:	1,4)		
	noigh	1 Mary Tarret	
		ECMAOTE	
HYDROLOGY	11016312	CMAOTE	
Wetland Hydrology Indicators:			condary Indicators (2 or more required)
	i: check all that apply)		condary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required		Se (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators:	i; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Se 9) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	i; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1	Se 9) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	i; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (6	Se 9) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	i; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (C) Oxidized Rhizospheres a	Se 9) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	i; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (COXidized Rhizospheres a Roots (C3)	Se 9) (except 13) C1) clong Living	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	i; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (COXidized Rhizospheres a Roots (C3) Presence of Reduced Iro	Se (9) (except (13) (C1) (clong Living (c4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	i; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (COxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Soils (C6)	Se 9) (except 13) C1) clong Living on (C4) Tilled	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	t; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (CO) Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction in Solls (C6) Stunted or Stressed Plan	Se 9) (except 13) C1) clong Living on (C4) Tilled	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	i; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (COxidized Rhizospheres a Roots (C3) Presence of Reduced Iron Recent Iron Reduction in Soils (C6) Stunted or Stressed Plan (LRR A)	Se 13) C1) Idong Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	i; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (COXIDE COXIDE	Se 13) C1) Idong Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	i; check all that apply) Water-Stained Leaves (B MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (COxidized Rhizospheres a Roots (C3) Presence of Reduced Iron Reduction in Soils (C6) Stunted or Stressed Plan (LRR A) Other (Explain in Remark)	Se 13) C1) Idong Living on (C4) Tilled onts (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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	BAIA I OKW - Western	nountains, valleys, and Coast Region
Project/Site: HAVA KANCH	city/County: Siskiyou a	8/22/2
Applicant/Owner: Hart Ranch Investigator(s): Mura Rabe Landform (hillstone terrace etc.): Landform (hillstone terrace et	City/County: State Car	Sampling Date: 0/23/2010
Investigator(s):	Section Township Range	ling Point:
Editation (misropo, terrade, etc.),	[F Incal rolled /concerve conve	\\\\
- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	120 / m2) 4/4 WW CW mm = 7/4/4 d	x, none):
Soil Map Unit Name:	Clariforn & mark	ABAD -In-air
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes V No	(If we explain to Dec. 1)
, de rogotation, de riyorolog	By IN Significantly disturbed? Are	"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrolog	y No naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach of	e men electric	•
Hydrophytic Vegetation Present? Yes	e map snowing sampling point	t locations, transects, important features, etc
Hydric Soil Present? Yes	No Is the Sampled Area w	Ithin a Wetland? Yes No
	No	
Remarks:		
Citch		
VEGETATION - Use scientific names of	of plants.	
_	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC:(A)
2.		Total Number of Dominant
3		Species Across All Strata: (B)
7.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		(A/B)
Sapling/Shrub Stratum (Plot size:	= Total Cover	Prevalence Index worksheet;
1		3
2.		Total % Cover of: Multiply by:
3.		OBL species x1 = FACW species x2 =
4.		
5		Proud.
ha-2-	= Total Cover	
Herb Stratum (Plot size: M		(4)
		Column Totals: (A) (B)
		Prevalence Index = B/A =
		Onderstad Maria Control
	+ 8/10 × 78/78 1	Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	Ne is writty	2 - Dominance Test is >50%
	JN 56 1	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants ¹
1		Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
/oody Vine Stratum (Plobsize:)		be present, unless disturbed or problematic.
	200,40	(#1) (#1) (#1)
- Contraction of the Contraction	as the same of the	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation
	- Mary Are	Present? Yes No
emarks:	Ch va Car	4 400 and
oal or	CAP A CAPE	profed general ripainer
NOVES	21 my as	DO VENTION
	en water and a cover	(S) >1

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			School Wales
SOIL Profile Description: (Describe to the depth no	eeded to document the Indi	icator or confirm the	ne absence of indicators.)
Depth Matrix	Redox Feat	ures <u> </u>	
	Color (moist) %	Type Loc	Texture Remarks
	548/1/2 TO		M clay pam
0-18 2.5 YR4/240° 5	2 15/10		- MC CLOCK I STATE
	•		
			
	2-3		
1 D Depletion DM-Dec	duced Metrix CS-Covered of	r Coated Sand Grai	ns. ² Location: PL=Pore Lining, M=Matrix.
¹ Type: C=Concentration, D=Depletion, RM=Rec	duced Matrix, C3-Covered of	- COALEG CENT CITE	
Hydric Soil Indicators: (Applicable to all LR	De unless otherwise noted	4.)	Indicators for Problematic Hydric Soils ³ :
		,	
Histosol (A1)	Sandy Redox (S5)	-	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	_	Other (Explain in Remarks)
	Depleted Matrix (F3)	_	
	Redox Dark Surface (F6)		³ Indicators of hydrophytic vegetation and
	Depleted Dark Surface (F7)		wetland hydrology must be present,
Carrey machine (-)	Redox Depressions (F8)		unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (1 c)	<u> </u>	
Restrictive Layer (if present):			ant? Yes X No
Type:	. <u></u>	Hydric Soil Prese	ent? Yes / NO
Depth (inches):			
Depart (morros):		<u> </u>	
IVADOLOGY			
HYDROLOGY			
Wetland Hydrology Indicators:			Secondary Indicators (2 or more required)
	eck all that apply)		Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators:	Water-Stained Leaves (t MLRA 1, 2, 4A, and 4B)	B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che X Surface Water (A1)	Water-Stained Leaves (t MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	B9) (except)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B	B9) (except) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B	B9) (except) 	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a	B9) (except) 113) (C1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Roots (C3)	B9) (except) (13) (C1) along Living	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced In	B9) (except) (13) (C1) along Living on (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Inc Recent Iron Reduction in	B9) (except) (13) (C1) along Living on (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (to MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Interpretation (C6) Soils (C6) Stunted or Stressed Plan	B9) (except) (13) (C1) along Living on (C4) n Tilled	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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^	DATA TOKIN - Western I	nountains, valleys, and Coast Region
Project/Site: HAV+ Kanch	city/county: Siskiyou C	8/00/0
Applicant/Owner: Hart Ranch Investigator(s): Marka Kabe Landform (hillslope, terrace, etc.): Trick of	City/County: 213NIVOL CE	Sampling Date: 0/23/2016
Investigator(s): And Hank Co.	State: CA Samp	ling Point: 30C
Landform (hillslope, terrace etc.)	Section, Township, Range:	45N R 5W Sect 1,2+3
Landform (hillslope, terrace, etc.): Leinna Subregion (LRR): MLRA 228	Local relief (concave, conve	x, none): Slope (%):
Soil Map Unit Name: 180 100 a alfan	Lat. (2) 3-1003 Long: 71-6	TVI +8 Datum: NAD 83
Soil Map Unit Name: 189 med to	Ca Clay toam cool	NWI classification:
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation Soil , or Hydrolo	significantly disturbed? Are	(If no, explain in Remarks.) "Normal Circumstances" present? Yes X No
, or riyalaro	naturally problematic?	(if needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	te man showing sampling noin	t locations, transects, important features, et
Hydrophytic Vegetation Present? Yes		riocations, transects, important features, et
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No significant land in the Sampled Area w	ithin a Wetland? Yes No
	No Se	
Remarks:		
	Tachuna	
	Pasing	
VEGETATION - Use scientific names	of plants	
OSC SCIENTING HAMES		
Tree Stratum (Plot size:	Absolute Dominant Indicator	Dominance Test worksheet:
1.	% Cover Species? Status	Number of Dominant Species
		That Are OBL, FACW, or FAC: (A)
		Total Number of Dominant
		Species Across All Strata: (B) Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	7.110	(7/6)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Providence to be
Tot size.		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species x 1 =
		FACW species x2 =
*		FAC species x 3 =
		FACU species x 4 =
erb Stratum (Plot size: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	= Total Cover	UPL species OD x5= 300
- Elymus elymoula	COD Y LIPLE	Column Totals: 40 (A) 300 (B)
The state of the s	GO Y OPL	
		Prevalence Index = B/A =
ь	1 60 N 1 N 1 N 1 N 1 N 1 N 1 N 1 N 1 N 1 N	Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	The second section is	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
	(a) = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
ody Vine Stratum (Riot size:	= Total Cover	Indicators of hydric soil and wetland hydrology must
(, 4, 6, 20.	L	be present, unless disturbed or problematic.
-	25 T 2 Sec. 5	1000
-	A shall receive	Hydrophytic
are Ground in Herb Stratum46 -	= Total Cover	Vegetation
- County III I I I I I I I I I I I I I I I I I	1	Present? Yes No
nation .		
narks:		
		1
		ļ

SOIL			Secondary Folds	300
Profile Description: (Describe to the de	pth needed to document the indi Redox Feat	icator or confirm '	the absence of indicators.)	-
Depth Matrix (inches) Color (moist) %	Color (moist) %	Type Lo	c ² Texture	Remarks
(11101100)			Chy loan	
D-18 3,5 YRY/0100				
<u></u>			.	
¹Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, CS=Covered o	r Coated Sand Gra	ains. ² Location: PL=Pore L	ining, M=Matrix.
			Indicators for Problematic	Hydric Soils ³ :
Hydric Soil Indicators: (Applicable to		•-,	2 cm Muck (A10)	•
Histosol (A1)	Sandy Redox (S5)		Red Parent Material (TF	2)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (evcent MI PA 1\	Very Shallow Dark Surfa	ace (TF12)
Black Histic (A3)	Loamy Mucky Mineral (F1) (Loamy Gleyed Matrix (F2)	event mem. i)	Other (Explain in Remai	rks)
Hydrogen Sulfide (A4)	Depleted Matrix (F3)			
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophyti	ic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology must	be present,
Sandy Middly Miller (S1)	Redox Depressions (F8)		unless disturbed or prob	lematic
candy croyer manner or				
Restrictive Layer (if present):				X
Type:		Hydric Soil Pres	sent? Yes	NoX
Depth (inches):				
Remarks:				
Terreries.				
	noindi	Cartra &		
	TIOTITAL	<u>Larons</u>		
HYDROLOGY		·-··		
Wetland Hydrology Indicators:	of check all that anniv		Secondary Indicators (2 or m	ore required)
	d; check all that apply) Water-Stained i eaves (B9) (except	Secondary Indicators (2 or m Water-Stained Leaves (8	ore required) 9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B 4A, and 4B)	ore required) 9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	ed; check all that apply) Water-Stained Leaves (i MLRA 1, 2, 4A, and 4B Salt Crust (B11)	B9) (except	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10)	9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B) 113) <u> </u>	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table	9) (MLRA 1, 2, (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (MI.RA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (B)) 113) (C1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10)	9) (MLRA 1, 2, (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11)) 113) (C1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer	9) (MLRA 1, 2, (C2) ial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3)) (C1) along Living	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2	9) (MLRA 1, 2, (C2) ial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced Ir) (C1) along Living on (C4)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer	9) (MLRA 1, 2, (C2) ial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i) (C1) along Living on (C4)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3)	9) (MLRA 1, 2, (C2) ial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6)) (C1) along Living on (C4) n Tilled	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2	9) (MLRA 1, 2, (C2) ial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla) (C1) along Living on (C4) n Tilled	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5)	9) (MLRA 1, 2, (C2) ial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Soils (C6) Stunted or Stressed Plat (LRR A)) (C1) along Living on (C4) n Tilled ints (D1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema) (C1) along Living on (C4) n Tilled ints (D1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5)	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema) (C1) along Living on (C4) n Tilled ints (D1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Concave Surface (Concave Surface Water Present? Yes Notes (Concave Surface (Co	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema 7) B8)) (C1) along Living on (C4) n Tilled ints (D1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present?	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction is Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema 7) B8) Depth (inches): Depth (inches):) (C1) along Living on (C4) n Tilled ints (D1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present?	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor of Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remain In R) (C1) along Living on (C4) n Tilled ints (D1) rks) Wetland	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Concave	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor of Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remain In R) (C1) along Living on (C4) n Tilled ints (D1) rks) Wetland	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes Naturation Present?	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor of Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remain In R) (C1) along Living on (C4) n Tilled ints (D1) rks) Wetland	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Concave	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor of Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remain In R) (C1) along Living on (C4) n Tilled ints (D1) rks) Wetland	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present?	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor of Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remain In R) (C1) along Living on (C4) n Tilled ints (D1) rks) Wetland	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present? (includes capillary fringe) Yes N Describe Recorded Data (stream gauge, me	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor of Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction in Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remain Plate (LRR A) The Depth (inches): Depth (inches): Depth (inches): Depth (inches):) (C1) along Living on (C4) n Tilled ants (D1) rks) Wetland us inspections), if a	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks Hydrology Present? Yes available:	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present? (includes capillary fringe) Yes N Describe Recorded Data (stream gauge, me	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic invertebrates (B Hydrogen Sulfide Odor of Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction is Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Remain In R) (C1) along Living on (C4) n Tilled ants (D1) rks) Wetland us inspections), if a	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks Hydrology Present? Yes available:	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)

. 0	The state of the stern in	wountains, valleys, and Coast Region
Project/Site: Hart Karch	City/County: Siski Vou Ca	Sampling Date: 8/23/20110
Applicant/Owner: Hart Ranch	State: CA Samo	fine Point:
Investigator(s): Andrea Kabe	Section, Township Range	Sampling Date: 0/23/2016 (ing Point: 3/2 Sect 1, 2+3
Landform (hillslope, terrace, etc.):	Dec Local relief (concave conve	ex, none):
		Slope (%):
Applying authority 12.3 Mag	TIL SOLDE LAGRA	ABAD =1===10==11
Are climatic / hydrologic conditions on the site ty	/pical for this time of year? Yes 💙 No	(If no explain in Democratic)
in a solution took to HADIOK	DOV INIO SIGNIFICANTIV dieturhed? Are	"Marmal Circumstancest survey to be V
Are Vegetation, Soil, or Hydrok	pgy NO naturally problematic?	(If needed, explain any answers in Remarks.)
		•
SUMMARY OF FINDINGS – Attach si	ite map showing sampling poin	t locations, transects, important features, et
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes		
Wetland Hydrology Present?	No is the Sampled Area w	ithin a Wetland? Yes No
Remarks:	,3)	
	1 1	
up	land pastine ld	itch bank
	2000 TO 100	T. COLO DIVINA
VEGETATION - Use scientific names	of plants.	
Top Obstance (T)	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
<u> </u>	= Total Cover	
Sapting/Shrub Stratum (Pot size:)		Prevalence Index worksheet:
1. 2. 3.		Total % Cover of: Multiply by:
2.		OBL species x 1 =
3.		FACW species x2 =
4		FAC species x 3 =
5		FACU species x 4 =
(a) Stratum (B) (1) 2	= Total Cover	UPL species (00 x 5 = 300
lerb Stratum (Plot size:	11.	Column Totals: 60 (A) 300 (B)
Centauca sottitialio	40 4 UPC	Coldital Totals. (A) 300 (B)
Sysimbrium Altissimum	20 4 UPC	Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	Control of Control	1 - Rapid Test for Hydrophytic Vegetation
	in an anglé so a	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants ¹
l		Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
(Plot size:)		be present, unless disturbed or problematic.
		is allows
	A STATE OF THE STA	and the second s
P	= Total Cover	Hydrophytic Vegetation
Bare Ground in Herb Stratum 40		Present? Yes No
emarks:		
		1
		1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicator or Confirm the Indicator or Confi	PATOLE I
Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type Loc Texture	,01010.)
	Remarks
0-6 10484/2 100 10am	·
100.00	
13 11/20	ha
12-18 104R3/1 100 SI +10a	<u>w</u>
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: Pl	.=Pore Lining, M=Matrix.
	olematic Hydric Soils ³ :
nyone son mucators. (Approache to an Entre of the Control of the C	
Histic Foinedon (A2) Stripped Matrix (S6) Red Parent Matrix	
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Snallow D	ark Surface (TF12)
Hydrogen Sunde (A4)	ii Nemanoj
Thick Dark Surface (A12) Redox Dark Surface (F6) *Indicators of hy	ydrophytic vegetation and
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology	gy must be present,
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbe	d or problematic
Ported time I come (if meanant)	V
Restrictive Layer (if present): Type: Hydric Soil Present? Yes	No
Type: Depth (inches):	
Remarks:	
GHQINS.	
alkalnole	
athaona	<u> </u>
Wetland Hydrology Indicators: Primary Indicators (minimum of one required: check all that apply) Secondary Indicators	3 (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (89) (except Water-Stained Leaves (89) (except	s (2 or more required) eaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Surface Water (A1) Secondary Indicators Water-Stained Leaves 4A, and 4B)	eaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Prainage Pattern Aquatic Invertebrates (B13) Dry-Season Water Water (B13)	eaves (B9) (MLRA 1, 2, is (B10) er Table (C2)
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Wetland Hydrology Indicators: Primary 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) Water Marks (B3) Secondary Indicators Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Drivater MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced fron (C4) Recent Iron Reduction in Tilled	eaves (B9) (MLRA 1, 2, as (B10) er Table (C2) e on Aerial Imagery (C9) ition (D2)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Drainage Pattern Saturation (A3) Aquatic Invertebrates (B13) Dry-Season Water (B1) Sediment Deposits (B1) Hydrogen Sulfide Odor (C1) Saturation Visible Sediment Deposits (B2) Roots (C3) Geomorphic Possils (C3) Presence of Reduced Iron (C4) Shallow Aquitard Recent Iron Reduction in Tilled Soils (C6) Algal Mat or Crust (B4) Soils (C6) FAC-Neutral Teatern Iron Deposits (B5) (LRR A) Raised Ant Mountern Surface Soil Cracks (B6) Other (Explain in Remarks) Frost-Heave Huntern Field Observations: Yes No Depth (inches): Wetland Hydrology Present Saturation Present? Yes No Depth (inches): Wetland Hydrology Present	eaves (B9) (MLRA 1, 2, as (B10) er Table (C2) e on Aerial Imagery (C9) eition (D2) I (D3) et (D5) ends (D6) (LRR A) enmocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Wetland Hydrology Indicators Water-Stained Leaves (B9) (except Water-Stained Leaves (B1) Aquatic Invertebrates (B13) Drainage Pattern Oriclae, B13 Condition (C1) Aquatic Invertebrates (B13) Drainage Pattern Oriclaes (B13) Condition (C1) Saturation Visible Oof (C1)	eaves (B9) (MLRA 1, 2, as (B10) er Table (C2) e on Aerial Imagery (C9) eition (D2) I (D3) et (D5) ends (D6) (LRR A) enmocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Surface Water (A1) Water-Stained Leaves (B9) (except High Water Table (A2) Salt Crust (B11) Drainage Pattern Saturation (A3) Aquatic Invertebrates (B13) Dry-Season Water Water Marks (B1) Hydrogen Sulfide Odor (C1) Saturation Visible Sediment Deposits (B2) Ropts (C3) Geomorphic Possitaliow Aquitard Presence of Reduced Iron (C4) Shallow Aquitard Recent Iron Reduction in Titled Soils (C6) FAC-Neutral Test Surface Soil Cracks (B6) (LRR A) Raised Ant Mounter (Explain In Remarks) Surface Soil Cracks (B6) Other (Explain In Remarks) Frost-Heave Hunter (Explain Present? Field Observations: Yes No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes No Depth (inches): Wetland Hydrology Present?	eaves (B9) (MLRA 1, 2, as (B10) er Table (C2) e on Aerial Imagery (C9) eition (D2) I (D3) et (D5) ends (D6) (LRR A) enmocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Wetland Hydrology Indicators Water-Stained Leaves (B9) (except Water-Stained Leaves (B1) Aquatic Invertebrates (B13) Drainage Pattern Oriclae, B13 Condition (C1) Aquatic Invertebrates (B13) Drainage Pattern Oriclaes (B13) Condition (C1) Saturation Visible Oof (C1)	eaves (B9) (MLRA 1, 2, as (B10) er Table (C2) e on Aerial Imagery (C9) eition (D2) I (D3) est (D5) ends (D6) (LRR A) enmocks (D7)
Secondary Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (B9) (except Stained Leaves (B1) (except Stained	eaves (B9) (MLRA 1, 2, as (B10) er Table (C2) e on Aerial Imagery (C9) eition (D2) I (D3) est (D5) ends (D6) (LRR A) enmocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Surface Water Table (A2) Saturation Vesible on Aerial Imagery (B7) Surface Water Present? Water-Stained Leaves (B9) (except AA, and 4B) Drainage Pattern Or, Saturation Leaves (B13) Code of C1) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Drainage Pattern Or, Saturation Visible of Cor (C1) Saturation Visible odor (C1) Saturation Visible odor (C1) Saturation Visible odor (C1) Sediment Papers Water-Stained 4B) Code of Call Saturation Visible of Cor (C1) Saturation Visible odor (C1) Saturation Visibl	eaves (B9) (MLRA 1, 2, as (B10) er Table (C2) e on Aerial Imagery (C9) eition (D2) I (D3) est (D5) ends (D6) (LRR A) enmocks (D7)
Wetland Hydrology Indicators: Primary 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) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Marks (B1) Secondary Indicators Water-Stained Leaves (B9) (except Water Table (except Base) (except Water Table (except Base) (except Algal Wat (B1) (except Base (B1) (except Base (B1)) (except Base (B1	eaves (B9) (MLRA 1, 2, as (B10) er Table (C2) e on Aerial Imagery (C9) eition (D2) I (D3) est (D5) ends (D6) (LRR A) enmocks (D7)

		Mountains, Valleys, and Coast Region
Project/Site: HAY Kanch	city/county: Siski you C	0. Sampling Date: 8/23/2010
Applicant/Owner: Hart Kanch	State: CA Samp	Sampling Date: 0/23/2010 Sing Point: 21 b Sect 1, 2+3
investigator(s): Movea Kalve	Section, Township, Range:	45N, RSW Sect 12+2
Landform (hillslope, terrace, etc.):	Local relief (concave, conve	ex, none): Onvex Slope (%):
con map out italie.	A STATE OF THE STA	\$884 -1
The summers of the control from the safety	/DICALIDE IDES TIME OF VEST? Ves V No.	Alfan manifest of the contract
, a o o o o o o o o o o o o o o o o o o	CMIV INIX CICRITICONTU RISE ISEASO A	(M. I
Are Vegetation , Soil , or Hydrole	ogy NO naturally problematic?	(if peeded explain any species in Daniel)
SUMMARY OF FINDINGS - Attach, si	ite map showing sampling poin	t locations, transects, important features, e
Hydrophytic Vegetation Present? Yes	No	
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No Is the Sampled Area w	rithin a Wetland? Yes 📉 No
	NO	
Remarks:		
1	itch	
	1010	
MECETATION HAVE I AND	_	
VEGETATION - Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Not size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		
		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		(12)
Sapling/Shrub Stratum (Plot size:	= Total Cover	
		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species 60 x1 = (00
3.		FACW species x 2 =
4.		FAC species x3 =
5		
	= Total Cover	
terb Stratum (Plot size: 1m2)		UPL species x 5 =
· Spheonoplectus acutus	60 Y BBL	Column Totals:(A) (A) (B)
	7 000	
		Prevalence Index = B/A =
		the decrease at a March at the Art and the
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	No. 1997.	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations / (Provide supporting
		data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants ¹
1		Problematic Hydrophytic Vegetation¹ (Explain)
\	OO = Total Cover	¹ Indicators of hydric soil and wetland hydrology must
/oody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
	, l	problematic,
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	A South San San	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation V
TO COMPANY TO COMPANY		Present? Yes No No
		, — —
emarks:		

)IL					-	ইন্ট্রালু নিজে নিজানিট্র	
rofile Descr		to the depti	h needed to documer	nt the indicator or	confirm the	absence of indicators.)	
Depth	Matrix		Re	edox Features % Type	Loc²	Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	76 Type			<u> </u>
) - 8	104010/2	00			e	loam_	
- 18	LOYR 5/1	100				Silt Loam	<u> </u>
1.0	Case I letter to I	\$1,000 Pm					
				-	e 		
							
Type: C=Col	ncentration D=Den	letion RM=	Reduced Matrix, CS=0	Covered or Coated	Sand Grains.	² Location: PL=Pore Lin	ing, M=Matrix.
						dicators for Problematic I	ludric Soils ³ .
Hydric Soil I	Indicators: (Applic	cable to all	LRRs, unless otherw	ise noted.)	In		iyane coma .
Histosol	(A1)		Sandy Redox (S5)			2 cm Muck (A10)	`
	ipedon (A2)		Stripped Matrix (St	5) arol (E4) /avan ot 14	DA 1) -	Red Parent Material (TF2 Very Shallow Dark Surface	
Black His		_	Loamy Mucky Mine Loamy Gleyed Mat	eral (F1) (except M	IKA I)	Other (Explain in Remark	
	n Sulfide (A4) i Below Dark Surfac	- (Δ11) -	Depleted Matrix (F		2	· · · · · · · · · · · · · · · · · ·	•
	rk Surface (A12)	~ (ATT) _	Redox Dark Surface	ce (F6)		3Indicators of hydrophytic	vegetation and
	lucky Mineral (S1)		Depleted Dark Sur	face (F7)		wetland hydrology must b	e present,
	leyed Matrix (S4)	_	Redox Depression	s (F8)		unless disturbed or proble	matic
estrictive Lay	yer (if present):			11.446	D - 11 Dana	a van X N	lo
Type:			<u></u>	Hydric	Soil Present	/ 1es _/\	
Depth (inch	es):					<u> </u>	
narks:			_				
			Lett dist.				
	DA.	VIIIU	ated orich		Olval	ine soils ~	nn nedox
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^		wountains, valleys, and Coast Region
Project/Site: Hart Kanch	City/County Siski Unu P	8/22/2011
Applicant/Owner: Hart Ranch	State: CA Secretary	Sampling Date: 8/23/2010
Applicant/Owner: Hart Ranch Investigator(s): Andrea Rabe Landform (hillslope, terrace, etc.): hillslope	Section Township Bases	ning Point:
Landform (hillstone, terrace, etc.): hill class	Section, Township, Range:	DN KSW Sect 1,2+3
	Lucai reliei (concave, conv	** PONO!
		43334 Datum: NAN K3
	TE CAST TOTAL STREAM TO A	5000 describedian.
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes X No	(If no, explain in Remarks.)
, or Hydroic	Pgy [NIX] Significantly disturbed? Are	"Normal Circumstanges" process? Ver. V
Are Vegetation, Soil, or Hydroic	pgy <u>N0</u> naturally problematic?	(If needed, explain any answers in Remarks.)
SHMMADY OF FINDINGS AND A		
Hydrophytic Vegetation Present? Yes	te map showing sampling poin	t locations, transects, important features, etc
Hydric Soil Present?	No. A. In the Communication	
Wetland Hydrology Present? Yes	No Is the Sampled Area w	ithin a Wetland? Yes No
Remarks:	75	
Nemarks.		
	<u> Oltchbank</u> Br	racharich.
	CTIONIONIO D	WE ON WORK
VEGETATION - Use scientific names	of mlants	V
VEGETATION - Ose scientific names	or plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
\ \	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		_Total % Cover of: Multiply by:
2.		
3.		OBL species x1 =
		FACW species x 2 =
).		FAC species x3 =
		FACU species x 4 =
lerb Stratum (Plot size:))	= Total Cover	UPL species 80 x 5 = 400
· Centourea Solstiticalla	20 12 202	Column Totals: 80 (A) 400 (B)
	30 9 OFC	Coldina Totals. By (A)
Syssimbrum altissimun	mio y UPL	Prevalence Index = B/A =
Reudoregneria spirata	40 Y UPL	
		Hydrophytic Vegetation Indicators:
	न हों। जिल्ला क	1 - Rapid Test for Hydrophytic Vegetation
	As a respectful way	2 - Dominance Test is >50%
		<i>,</i> —
	1944	3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
).		5 - Wetland Non-Vascular Plants ¹
	SD = Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
Inodu Vino Stratum (Disk	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
/oody Vine Stratum (Plot size:)	1	be present, unless disturbed or problematic.

ii.	And the second s	the state of the s
~ · ·	= Total Cover	3prijuo
Bare Ground in Herb Stratum 20		Vegetation Present? Yes No
	}	NO _/
emarks:		
		1

IL							ing Point	
rofile Description: (Describe	to the depth	needed to docum	nent the inc	licator or co	nfirm the a	bsence of ind	licators.)	,
Depth <u>Matrix</u>	%	Color (moist)_	Redox Fea	tures Type	Loc²	Textur		Remarks
101/01/10		COIOT (MOIOT)				laam		
	100					loam		
2-11 1048 6/2	1 4 4 5				_		100	
1-18 1042.8/1	(O)					21.14	10am	
								90
								
 				===				
 -	 _					21 acation: I	—.— - Dispore i ir	ning, M=Matrix.
Type: C=Concentration, D=De								
Hydric Soil Indicators: (App	licable to all	LRRs, unless othe	rwise note	d.)	Inc	licators for Pr		Hydric Soils":
Histosof (A1)		_ Sandy Redox (S				2 cm Muck (A Red Parent M) \
Histic Epipedon (A2)	_	Stripped Matrix (Loamy Mucky M	(S6) liporal (E1) :	/except MI R	A 1) —	Very Shallow		
Black Histic (A3) Hydrogen Sulfide (A4)	-	Loamy Mucky M	⊮nerar (ΕΤ) ' Matrix (F2)	Avoahr mru		Other (Explain	n in Remark	(8)
Depleted Below Dark Surfa	ace (A11)	Depleted Matrix	(F3)					
Thick Dark Surface (A12)		Redox Dark Sur	face (F6)			"Indicators of wetland hydro	hydrophytic	vegetation and
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	_	Depleted Dark S Redox Depressi		ļ		unless disturb	ed or proble	ematic
Sandy Gleyed Matrix (54)		- I COOK DOPIOOS	(, 0)	T				
strictive Layer (if present):								40 X
·				Hydric Soi	il Present	? Yes	r	40 <u>/ ' </u>
Depth (Inches):				1				
narks:								
DROLOGY				1	Sac	ondary Indicate	ors (2 or mo	re required)
DROLOGY	one required; (check all that apply)) ed Leaves	(B9) (except	Sec	ondary Indicato Water-Stained	ors (2 or mo Leaves (89	re required)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of c	ne required; (check all that apply) Water-Stain MLRA 1, 2,	ed Leaves ((B9) (except		Water-Stained 4A, and 4B)	Leaves (B9	re required)) (MLRA 1, 2,
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of c Surface Water (A1) High Water Table (A2)	one required; (Water-Stain MLRA 1, 2, Salt Crust (E	ed Leaves (4A, and 45 B11)	3)		Water-Stained 4 A, and 4B) Drainage Patte	Leaves (B9 rns (B10)) (MLRA 1, 2,
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of c Surface Water (A1) High Water Table (A2) Saturation (A3)	one required; (Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve	ed Leaves (4A, and 48 B11) ertebrates (B	3) 313)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Wa	Leaves (B9 erns (B10) ater Table () (MLRA 1, 2, C2)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of c Surface Water (A1) High Water Table (A2)	ne required; (Water-Stain MLRA 1, 2, Salt Crust (i Aquatic Inve	ed Leaves (4A, and 4B B11) ertebrates (B sulfide Odor	3) 313)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season We Saturation Visil	Leaves (B9 erns (B10) ater Table (ble on Aeria) (MLRA 1, 2, C2) il Imagery (C9)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of c Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	one required; o	Water-Stain MLRA 1, 2, Salt Crust (the same state of the same stat	ed Leaves (4A, and 4E B11) ertebrates (E sulfide Odor nizospheres	313) (C1) along Living		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water attention Visil Geomorphic Policy Geomorphic	Leaves (B9 ems (B10) ater Table (ble on Aeria osition (D2)) (MLRA 1, 2, C2) il Imagery (C9)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of c Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	one required; o	Water-Stain MLRA 1, 2, Salt Crust (the same state of the same stat	ed Leaves (4A, and 4E B11) ertebrates (E ulfide Odor nizospheres f Reduced I	i) 313) (C1) along Living ron (C4)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water Staturation Visil Geomorphic Poshallow Aquita	Leaves (B9 ims (B10) ater Table (ible on Aeria osition (D2) ard (D3)) (MLRA 1, 2, C2) il Imagery (C9)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of c Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	one required; (Water-Stain MLRA 1, 2, Salt Crust (the same state of the same stat	ed Leaves (4A, and 4E B11) ertebrates (E ulfide Odor nizospheres f Reduced I	i) 313) (C1) along Living ron (C4)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water attention Visil Geomorphic Policy Geomorphic	Leaves (B9 ims (B10) ater Table (ible on Aeria osition (D2) ard (D3)) (MLRA 1, 2, C2) il Imagery (C9)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of control of the	ne required; (Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S	ed Leaves (4A, and 4B B11) ertebrates (Eulfide Odor nizospheres f Reduced II Reduction	313) (C1) along Living ron (C4) in Tilled		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water Staturation Visil Geomorphic Poshallow Aquita FAC-Neutral To	Leaves (89 rns (B10) ater Table (in ble on Aeria position (D2) ard (D3) est (D5)) (MLRA 1, 2, C2) il Imagery (C9)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of of 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)	ne required; (Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A)	ed Leaves (4A, and 4B B11) ertebrates (B ulfide Odor nizospheres f Reduced II Reduction Stressed Pla	313) (C1) along Living ron (C4) in Tilled ants (D1)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water Staturation Visil Geomorphic Poshallow Aquita FAC-Neutral To	Leaves (B9 rms (B10) ater Table (ible on Aeria position (D2) ard (D3) est (D5) nunds (D6) () (MLRA 1, 2, C2) il Imagery (C9)
DROLOGY stland Hydrology Indicators: mary Indicators (minimum of of 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)	ne required; (Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S	ed Leaves (4A, and 4B B11) ertebrates (B ulfide Odor nizospheres f Reduced II Reduction Stressed Pla	313) (C1) along Living ron (C4) in Tilled ants (D1)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water Staturation Visil Geomorphic Poshallow Aquita FAC-Neutral To	Leaves (B9 rms (B10) ater Table (ible on Aeria position (D2) ard (D3) est (D5) nunds (D6) () (MLRA 1, 2, C2) Il Imagery (C9)
DROLOGY atland Hydrology Indicators: mary Indicators (minimum of of control	ne required; (Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expli	ed Leaves (4A, and 4B B11) ertebrates (B ulfide Odor nizospheres f Reduced II Reduction Stressed Pla	313) (C1) along Living ron (C4) in Tilled ants (D1)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water Staturation Visil Geomorphic Poshallow Aquita FAC-Neutral To	Leaves (B9 rms (B10) ater Table (ible on Aeria position (D2) ard (D3) est (D5) nunds (D6) () (MLRA 1, 2, C2) Il Imagery (C9)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave	ne required; (Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expli	ed Leaves (4A, and 4B B11) ertebrates (B ulfide Odor nizospheres f Reduced II Reduction Stressed Pla	313) (C1) along Living ron (C4) in Tilled ants (D1)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water Staturation Visil Geomorphic Poshallow Aquita FAC-Neutral To	Leaves (B9 rms (B10) ater Table (ible on Aeria position (D2) ard (D3) est (D5) nunds (D6) () (MLRA 1, 2, C2) Il Imagery (C9)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of consumation of consumation (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 In Sparsely Vegetated Concaver	magery (B7)	Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expli	ed Leaves (4A, and 4B B11) ertebrates (B ulfide Odor nizospheres f Reduced II Reduction Stressed Pla ain In Rema	313) (C1) along Living ron (C4) in Tilled ants (D1)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water Staturation Visil Geomorphic Poshallow Aquita FAC-Neutral To	Leaves (B9 rms (B10) ater Table (ible on Aeria position (D2) ard (D3) est (D5) nunds (D6) ((MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of control of the	magery (B7) Surface (B8)	Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expli	ed Leaves (4A, and 4B B11) ertebrates (B ulfide Odor nizospheres f Reduced II Reduction Stressed Pla ain in Rema	313) (C1) along Living ron (C4) in Tilled ants (D1) arks)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water Staturation Visil Geomorphic Poshallow Aquita FAC-Neutral To	Leaves (B9 rms (B10) ater Table (ible on Aeria osition (D2) ard (D3) est (D5) aunds (D6) (lummocks (l	(MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of control of the surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concave (B4) et al Concave	magery (B7) Surface (B8) S No	Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expli	ed Leaves (44A, and 48 B11) ertebrates (6 ulfide Odornizospheres f Reduced II Reduction Stressed Platain in Remains):	313) (C1) along Living ron (C4) in Tilled ants (D1) arks)		Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water-Stainen Visil Geomorphic Poshallow Aquita FAC-Neutral Tokalsed Ant Mo Frost-Heave H	Leaves (B9 rms (B10) ater Table (ible on Aeria osition (D2) ard (D3) est (D5) aunds (D6) (lummocks (l	(MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of control of	magery (B7) Surface (B8) No S No	Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expli	ed Leaves (4A, and 4B B11) ertebrates (B ulfide Odor nizospheres f Reduced II Reduction Stressed Pla ain In Rema	313) (C1) along Living ron (C4) in Tilled ants (D1) arks) We	atland Hyd	Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water-Stainen Visil Geomorphic Poshallow Aquita FAC-Neutral Tokaised Ant Mo Frost-Heave H	Leaves (B9 rms (B10) ater Table (ible on Aeria osition (D2) ard (D3) est (D5) aunds (D6) (lummocks (l	(MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of commany Indicators (Management Commany Indicators (Management Indicators (Mana	magery (B7) Surface (B8) No S No	Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expli	ed Leaves (4A, and 4B B11) ertebrates (B ulfide Odor nizospheres f Reduced II Reduction Stressed Pla ain In Rema	313) (C1) along Living ron (C4) in Tilled ants (D1) arks) We	atland Hyd	Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water-Stainen Visil Geomorphic Poshallow Aquita FAC-Neutral Tokaised Ant Mo Frost-Heave H	Leaves (B9 rms (B10) ater Table (ible on Aeria osition (D2) ard (D3) est (D5) aunds (D6) (lummocks (l	(MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of control of the state of the st	magery (B7) Surface (B8) No S No	Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expli	ed Leaves (4A, and 4B B11) ertebrates (B ulfide Odor nizospheres f Reduced II Reduction Stressed Pla ain In Rema	313) (C1) along Living ron (C4) in Tilled ants (D1) arks) We	atland Hyd	Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water-Stainen Visil Geomorphic Poshallow Aquita FAC-Neutral Tokaised Ant Mo Frost-Heave H	Leaves (B9 rms (B10) ater Table (ible on Aeria osition (D2) ard (D3) est (D5) aunds (D6) (lummocks (l	(MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of control of	magery (B7) Surface (B8) No S No	Water-Stain MLRA 1, 2, Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expli	ed Leaves (4A, and 4B B11) ertebrates (B ulfide Odor nizospheres f Reduced II Reduction Stressed Pla ain In Rema	313) (C1) along Living ron (C4) in Tilled ants (D1) arks) We	atland Hyd	Water-Stained 4A, and 4B) Drainage Patte Dry-Season Water-Stainen Visil Geomorphic Poshallow Aquita FAC-Neutral Tokaised Ant Mo Frost-Heave H	Leaves (B9 rms (B10) ater Table (ible on Aeria osition (D2) ard (D3) est (D5) aunds (D6) (lummocks (l	(MLRA 1, 2, C2) Il Imagery (C9) LRR A) D7)

O DETERMINA	TION DATA FORM - Western !	Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch	city/County: Siskiyou Co	Sampling Date: 8/23/2011
Application Civilian () () () () () () ()	Stoler L. D.	
Subregion (LRR): MLRA 22R	Lat 120 29 Co27 Long TI /o	x, none): Convey Slope (%): 10
Soil Map Unit Name: 180 (DIII	elpam	Datum: VIII (3
Are climatic / hydrologic conditions on the site typ	pical for this time of year? Yes	NWI classification:
Are Vegetation Soil or Hydrolo	ov No significantly disturbed A	(If no, explain in Remarks.) "Normal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrolo	gy 100 naturally problematic?	"Normal Circumstances" present? Yes
70010		(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	e map showing sampling point	t locations, transects, important features, et
		i.
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No Is the Sampled Area w	Ithin a Wetland? Yes No
	No 🗽	
Remarks:		
VEGETATION - Use scientific names	of plants	
ode scientific names		
Tree Stratum (Plot size:	Absolute Dominant Indicator	Dominance Test worksheet:
1	% Cover Species? Status	Number of Dominant Species
		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		That Are OBL, FACW, or FAC:(A/B)
10.2	= Total Cover	
Sapling/Skrub Stratum (Plot size: 1/1/2)		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x1=
3.		FACW species x 2 =
4.		FAC species x 3 =
5		FACU species x 4 =
1	= Total Cover	
Herb Stratum (Plot size: M)	A	UPL species 40 x 5 = 200
1. Juntaine la solstina	dis 10 Y UPL	Column Totals: (A) (B)
2. Reudoregre riaspicata	SO U UPL	Prevalence Index = B/A =
3.		
4.		Hydrophytic Vegetation Indicators:
5	e with the state of the state o	1 - Rapid Test for Hydrophytic Vegetation
6.	Section 2000 rate	2 - Dominance Test is >50%
7.		2 - Bornmance rest is >50% 3 - Prevalence Index is ≤3.0¹
8	2.846.13	4 - Morphological Adaptations¹ (Provide supporting
9		data in Remarks or on a separate sheet)
10.		5 - Wetland Non-Vascular Plants ¹
11.	N. M. As. Can	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	
Woody Vine Stratum (Plot size:)		¹ indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic,
1	<u> </u>	
2.	<u> </u>	4
1	≃ Total Cover	Hydrophytic
% Bare Ground in Herb Stratum 60 -	TOTAL COVE	Vegetation
	1	Present? Yes No
Remarks:		
		J
		1

SOIL		:	firm the ch	Sampling Fulfil	
Profile Description: (Describe to the de	epth needed to document the ii Redox Fe	ndicator or con valures	nm the ab	sence of indicators.)	
Depth Matrix (inches) Color (moist) %	Color (moist) %		Loc ²	Texture	Remarks
<u> </u>	<u> </u>			Toam	
11-18 2,54R6/3100				loan	
	<u> </u>				
					
_					
		· —			
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, CS=Covered	or Coated San	d Grains.	² Location: PL=Pore	Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to		-		ators for Problemati	ic Hydric Soils³:
Hydric Soil Indicators: (Applicable to		,		cm Muck (A10)	
Histosol (A1)	Sandy Redox (S5)		<u>F</u>	Red Parent Material (T	(F2)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLR4	(1) — \	ery Shallow Dark Sur	face (TF12)
Black Histic (A3)	Loamy Gleyed Matrix (F2)		· · · · ·	Other (Explain in Rema	arks)
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	•			
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3	Indicators of hydrophy	tic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F	7)	٧	vetland hydrology mus	st be present.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		L	inless disturbed or pro	oblematic
					1.7
Restrictive Layer (if present):		1		W	No X
Type:		Hydric Soil	Present?	Yes	NO
Depth (inches):	<u> </u>	1			
emarks:					
-					
HYDROLOGY Motland Hydrology Indicators:					
Wetland Hydrology Indicators:	ed; check all that apply)		Secon	dary Indicators (2 or r	more required)
Wetland Hydrology Indicators:	Water-Stained Leaves		w	ater-Stained Leaves (more required) B9) (MLRA 1, 2,
Wetland Hydrology Indicators:	Water-Stained Leave		W	ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	Water-Stained Leaves MLRA 1, 2, 4A, and 4 Sait Crust (B11)	IB)		ater-Stained Leaves (, and 4B) ainage Patterns (B10	B9) (MLRA 1, 2,)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates	(B13)	— W	ater-Stained Leaves (, and 4B) ainage Patterns (B10 v-Season Water Tabl	B9) (MLRA 1, 2,) e (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	Water-Stained Leaves MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Ode	(B13) or (C1)	— W	ater-Stained Leaves (, and 4B) ainage Patterns (B10	B9) (MLRA 1, 2,) e (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leave: MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere	(B13) or (C1)		ater-Stained Leaves (and 4B) ainage Patterns (B10 y-Season Water Table aturation Visible on Ae	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3)	(B13) or (C1) es along Living	W. 44 Dr Dr Dr Sa	ater-Stained Leaves (, and 4B) ainage Patterns (B10 v-Season Water Tabl	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced	(B13) or (C1) es along Living	W. 44 Dr Dr Sa	ater-Stained Leaves (A, and 4B) ainage Patterns (B10 y-Season Water Table aturation Visible on Ae eomorphic Position (D nallow Aquitard (D3)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leave: MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio	(B13) or (C1) es along Living	W. 44 Dr Dr Sa	ater-Stained Leaves (A, and 4B) ainage Patterns (B10 y-Season Water Table aturation Visible on Ae eomorphic Position (D	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced	(B13) or (C1) es along Living I Iron (C4) n in Tilled	W 4# Dr Dr Sa Gr Fr	ater-Stained Leaves (B9) (MLRA 1, 2,) e (C2) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leave: MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Solls (C6) Stunted or Stressed F	(B13) or (C1) as along Living I Iron (C4) an in Tilled Plants (D1)		ater-Stained Leaves (B9) (MLRA 1, 2,) e (C2) erial Imagery (C9))2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leave: MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed If (LRR A) Other (Explain in Rer	(B13) or (C1) as along Living I Iron (C4) an in Tilled Plants (D1)		ater-Stained Leaves (B9) (MLRA 1, 2,) e (C2) erial Imagery (C9))2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B	Water-Stained Leave: MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed I (LRR A) Other (Explain in Rer	(B13) or (C1) as along Living I Iron (C4) an in Tilled Plants (D1)		ater-Stained Leaves (B9) (MLRA 1, 2,) e (C2) erial Imagery (C9))2)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (C) Field Observations:	Water-Stained Leave: MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed If (LRR A) Other (Explain in Rer	(B13) or (C1) as along Living I Iron (C4) an in Tilled Plants (D1)		ater-Stained Leaves (B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 6) (LRR A) s (D7)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Water-Stained Leave: MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed If (LRR A) Other (Explain in Rer (7) (B8) Depth (inches): Depth (inches):	(B13) or (C1) es along Living I Iron (C4) en in Tilled Plants (D1) enarks) Wei	W. 44 Dr Dr Dr Sa Gr Sh Fr Fr	ater-Stained Leaves (A, and 4B) ainage Patterns (B10 y-Season Water Table aturation Visible on Activation (Display Activation	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 6) (LRR A) s (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (B1) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Water-Stained Leave: MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed If (LRR A) Other (Explain in Rer (7) (B8) Depth (inches): Depth (inches):	(B13) or (C1) es along Living I Iron (C4) en in Tilled Plants (D1) enarks) Wei	W. 44 Dr Dr Dr Sa Gr Sh Fr Fr	ater-Stained Leaves (A, and 4B) ainage Patterns (B10 y-Season Water Table aturation Visible on Activation (Display Activation	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 6) (LRR A) s (D7)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (B1) Field Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present? Yes N (Includes capillary fringe) Yes N escribe Recorded Data (stream gauge, mineral present)	Water-Stained Leave: MLRA 1, 2, 4A, and 4 Sait Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductio Soils (C6) Stunted or Stressed If (LRR A) Other (Explain in Rer (7) (B8) Depth (inches): Depth (inches):	(B13) or (C1) es along Living I Iron (C4) en in Tilled Plants (D1) enarks) Wei	W. 44 Dr Dr Dr Sa Gr Sr Fr Fr Fr Fr St	ater-Stained Leaves (A, and 4B) ainage Patterns (B10 y-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6 cost-Heave Hummock	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) 02) 6) (LRR A) s (D7)

. •	Mountains, valleys, and Coast Region
Project/Site: Hart Kanch City/County: Siskiyou C	8/22/24
Applicant/Owner: Hart Ranch State: CA Samu	Sampling Date: 0/23/2010
Applicant/Owner: Hart Ranch State: CA Sample Section, Township, Range:	Ding Point:
Landform (hillslope, terrace, etc.): Local relief (concave converge)	
Subregion (LRR): MLRA 228 Lat 722 39881 Long: 4.1.	ex, none): CONVEX Slope (%): 1()
Soil Map Unit Name: 180 Dule Loam	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X	NWI classification:
Are Vegetation Soil or Hydrology No significantly disturbed? Are	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology NO naturally problematic?	No
	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling poir Hydrophytic Vegetation Present? Yes No Y	nt locations, transects, important features, et
110.000 00.000 00	
Wetland Hydrology Present? Yes No No Is the Sampled Area w	vithin a Wetland? Yes No _X
Remarks:	
Remarks.	
VEGETATION – Use scientific names of plants.	
	No. of the second secon
Tree Stratum (Plot size:) Absolute Dominant Indicator Species? Status	
1. Specification of the specif	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.	Total Number of Dominant
3.	Species Across All Strata: (B)
4.	Percent of Dominant Species
	That Are OBL, FACW, or FAC; (A/B)
t o = Total Cover	
Sapling/Shrub Stratum (Plot size:)	Prevalence Index worksheet:
1. Artemesia tridentata 20 V us	Total % Cover of: Multiply by:
Chrysothamnus nauscosus 20 y UPL	OBL species x1=
= Total Cover	FACU species x 4 =
lerb Stratum (Plot size: 100)	UPL species 50 x 5 = 250
Bromus tectorum 10 V IPL	Column Totals: SO (A) ZSO (B)
	Prevalence Index = B/A = 5
	Hydrophytic Vegetation Indicators:
	1 - Rapid Test for Hydrophytic Vegetation
the same experts to a	2 - Dominance Test is >50%
	3 - Prevalence Index is <3.01
	4 - Morphological Adaptations (Provide supporting
	data in Remarks or on a separate sheet)
).	5 - Wetland Non-Vascular Plants ¹
	Problematic Hydrophytic Vegetation¹ (Explain)
= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
oody Vine Stratum (Plot size:)	be present, unless disturbed or problematic.
17 1 19 10 12 11 11 11 11 11 11 11 11 11 11 11 11	The state of the s
= Total Cover	nyarophytic
Bare Ground in Herb Stratum SO	Vegetation Present? Yes No
	NO
marks:	
	1

SOIL		अहा हमा शामिन शिक्षा है।	
Profile Description: (Describe to the depth needed to document the inc	licator or confirm	the absence of indicators.)	
Depth Matrix Redox Fea	tures	oc² Texture	Remarks
(individe)	1300		
0-10 2.54842 100			
10-18 2.542613 100		loan	
			
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered of	or Coated Sand G		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise note	d.)	Indicators for Problematic	Hydric Soils ³ :
	•	2 cm Muck (A10)	Ì
Histic Epipedon (A2) Stripped Matrix (S6)		Red Parent Material (TF:	2)
Black Histic (A3) Loamy Mucky Mineral (F1)	(except MLRA 1)	Very Shallow Dark Surfa	ce (TF12)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)		Other (Explain in Remark	'KS)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)		³ Indicators of hydrophytic	he notetenero
Thick Dark Surface (A12) Redox Dark Surface (F6) Redox Dark Surface (F6)		wetland hydrology must	be present.
Sandy Mucky Mineral (S1) Sandy Gleved Matrix (S4) Depleted Dark Surface (F7) Redox Depressions (F8)		unless disturbed or prob	lematic
Sandy Gleyed Matrix (S4) Redox Depressions (F8)	 		
Restrictive Layer (if present):			Y I
Type:	Hydric Soil Pre	esent? Yes	No
Depth (inches):			
Remarks:	·		
Nellibro.			
A to the second	water		ľ
1 10 110	CALL		
	" (MID!		
HYDROLOGY			
HYDROLOGY Wetland Hydrology Indicators:	······································	Secondary Indicators (2 or mo	ore required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or mo Water-Stained Leaves (BS	ore required) 9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (B9) (except	Secondary Indicators (2 or mo Water-Stained Leaves (BS 4A, and 4B)	ore required) 9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Surface Water (A1) High Water Table (A2) MLRA 1, 2, 4A, and 4B Sait Crust (B11)	B9) (except	Secondary Indicators (2 or mo Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10)	9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Surface Water (A1) High Water Table (A2) Saturation (A3) HYDROLOGY Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B	B9) (except	Secondary Indicators (2 or mo Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (9) (MLRA 1, 2, (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Hydrogen Sulfide Odor	B9) (except) 313) (C1)	Secondary Indicators (2 or mo Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10)	9) (MLRA 1, 2, (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4E Salt Crust (B11) Saturation (A3) Water Marks (B1) Hydrogen Sulfide Odor Oxidized Rhizospheres	B9) (except) 313) (C1)	Secondary Indicators (2 or mo Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (9) (MLRA 1, 2, (C2) al Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4E Sait Crust (B11) Saturation (A3) Saturation (A3) Water Marks (B1) Hydrogen Sulfide Odor Oxidized Rhizospheres Sediment Deposits (B2) Roots (C3)	B9) (except 313) (C1) along Living	Secondary Indicators (2 or mo Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria	9) (MLRA 1, 2, (C2) al Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (I) Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Roots (C3)	B9) (except 313) (C1) along Living ron (C4)	Secondary Indicators (2 or mo Water-Stained Leaves (89 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3)	9) (MLRA 1, 2, (C2) al Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4E Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (I Hydrogen Sulfide Odor Oxidized Rhizospheres Sediment Deposits (B2) Drift Deposits (B3) Recent Iron Reduction Algal Mat or Crust (B4)	B9) (except 313) (C1) along Living ron (C4) in Tilled	Secondary Indicators (2 or mo Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeric	9) (MLRA 1, 2, (C2) al Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4E Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (I Hydrogen Sulfide Odor Oxidized Rhizospheres Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Recent Iron Reduction Soils (C6) Stunted or Stressed Pla	B9) (except 313) (C1) along Living ron (C4) in Tilled	Secondary Indicators (2 or mo Water-Stained Leaves (89 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	9) (MLRA 1, 2, (C2) al Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4E Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (I Hydrogen Sulfide Odor Oxidized Rhizospheres Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Water Marks (B1) Recent Iron Reduction Soils (C6) Stunted or Stressed Pla	B9) (except 313) (C1) along Living ron (C4) in Tilled	Secondary Indicators (2 or mo Water-Stained Leaves (89 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) al Imagery (C9))
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B 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) Wetland Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction Soils (C6) Stunted or Stressed Platence of Carbon Control Carbon Contr	B9) (except 313) (C1) along Living ron (C4) in Tilled	Secondary Indicators (2 or mo Water-Stained Leaves (89 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	9) (MLRA 1, 2, (C2) al Imagery (C9))
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerlal Imagery (B7)	B9) (except 313) (C1) along Living ron (C4) in Tilled	Secondary Indicators (2 or mo Water-Stained Leaves (89 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) al Imagery (C9))
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B 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) Wetland Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction Soils (C6) Stunted or Stressed Platence of Carbon Control Carbon Contr	B9) (except 313) (C1) along Living ron (C4) in Tilled	Secondary Indicators (2 or mo Water-Stained Leaves (89 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) al Imagery (C9))
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B1) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B1) Aquatic Invertebrates (B1) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Plate (LRR A) Other (Explain in Remaindent Plate (B8) Field Observations:	B9) (except 313) (C1) along Living ron (C4) in Tilled	Secondary Indicators (2 or mo Water-Stained Leaves (89 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) al Imagery (C9))
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HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	B9) (except 3) 313) (C1) along Living ron (C4) in Tilled ants (D1)	Secondary Indicators (2 or mo Water-Stained Leaves (88 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks (9) (MLRA 1, 2, (C2) al Imagery (C9))
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerlal Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present?	B9) (except 3) 313) (C1) along Living ron (C4) in Tilled ants (D1)	Secondary Indicators (2 or mo Water-Stained Leaves (88 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks (9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B1) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? (Includes capillary fringe) Yes No Depth (inches):	B9) (except 3) 313) (C1) along Living ron (C4) in Tilled ants (D1) arks) Wetian	Secondary Indicators (2 or mo Water-Stained Leaves (88 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks (9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerlal Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present?	B9) (except 3) 313) (C1) along Living ron (C4) in Tilled ants (D1) arks) Wetian	Secondary Indicators (2 or mo Water-Stained Leaves (88 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks (9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B1) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? (Includes capillary fringe) Yes No Depth (inches):	B9) (except 3) 313) (C1) along Living ron (C4) in Tilled ants (D1) arks) Wetian	Secondary Indicators (2 or mo Water-Stained Leaves (88 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks (9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
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HYDROLOGY Wetland Hydrology Indicators: Primary 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) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe) Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous prev	B9) (except 313) (C1) along Living ron (C4) in Tilled ants (D1) arks) Wetlan us inspections), if	Secondary Indicators (2 or mo Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks (d Hydrology Present? Yes available:	9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary 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) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe) Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous prev	B9) (except 313) (C1) along Living ron (C4) in Tilled ants (D1) arks) Wetlan us inspections), if	Secondary Indicators (2 or mo Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks (d Hydrology Present? Yes available:	9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary 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) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe) Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous prev	B9) (except 313) (C1) along Living ron (C4) in Tilled ants (D1) arks) Wetlan us inspections), if	Secondary Indicators (2 or mo Water-Stained Leaves (88 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks (9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)

^		nountains, valleys, and Coast Region
Project/Site: Hart Ranch	city/county: Siski Unit Pr	8/12/1011a
Applicant/Owner: Hart Ranch Investigator(s): Angula Ranch Landform (hillslope, terrace, etc.): hill	States CA Commission	Sampling Date: 0125/2010
Investigator(s):	Section Township Day	ling Point:
Landform (hillslope, terrace, etc.);	Section, Township, Range:	75N, K5W Sect 1,2+3
Subregion (LRR): MLRA 228		
Soil Map Unit Name: 188 wany	Lat. 102,7046 Stong: 71,0	90135 Datum: NAN 83
Are climatic / hydrologic conditions on the attention	LEGUL DESTEVES	NWI classification:
Are climatic / hydrologic conditions on the site ty	pleat for this time of year? Yes X No	(If no, explain in Remarks.)
, Con, Con	29Υ INU Significantiv disturbed? Δερ	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrok	pgy ND naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach at	to man abouting assemble as the	
Hydrophytic Vegetation Present? Yes	No Solution No.	l locations, transects, important features, etc
Hydric Soil Present? Yes	No Sampled Area wi	
Wetland Hydrology Present? Yes	No S	NO /
Remarks:	7.0	
<i>500</i> .6	porusin millend	
\ \ \	***	
VEGETATION - Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size: 12)		Prevalence Index worksheet:
1. Artemposia tradentata	ID Y UPL	Total % Cover of: Multiply by:
2.		
3		
4		FACW species x 2 =
5.		FAC species x 3 =
	D = Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 100 200)	- Total Cover	UPL species 36 x5= (50
1. Brimus tectorum	20 4 40	Column Totals: 30 (A) 150 (B)
2.	1 176	
3.		Prevalence Index = B/A = ## \$ 5.0
4.		Hydrophytic Vegetation Indicators:
5	A REAL OF TRAINS	1 - Rapid Test for Hydrophytic Vegetation
5		2 - Dominance Test is >50%
7		3 - Prevalence Index is ≤3.0¹
		4 - Morphological Adaptations ¹ (Provide supporting
).		data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants ¹
1,	1.41	Problematic Hydrophytic Vegetation¹ (Explain)
	20 = Total Cover	
Yoody Vine Stratum (Plot size:)	1000100761	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	<u>_</u>	be present, unless disturbed or problematic.
	4 (4.5)	Entry 4
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum	- Total Cover	Vegetation
	1	Present? Yes No
emarks:		
william,		
		1
		ļ

SOIL	
Profile Description: (Describe to the d	lepth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix (inches) Color (moist) %	Redox Features Color (moist) % Type¹ Loc² Texture Remarks
	<u> </u>
D-10 10483/3 100	
10-18 1042 314 10	10am
	is the control of the
To a control of the c	PM-Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
	Non-Neutrice Matrix, 55 Section 5 Se
Hydric Soil Indicators: (Applicable to	o Music (A40)
Histosol (A1)	Sandy Redox (SO)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)
Thick Dark Surface (A12)	Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic
Restrictive Layer (if present):	Hudric Soil Present? Yes No
Type:	Hydric Soil Present? Yes No X
Depth (inches):	
emarks:	
	m Indicators
	V V V V Coden
	110 11 1001 1001 1013
	The vical coops
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one requir	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	red; check all that apply) Water-Stained Leaves (B9) (except Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators:	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Titled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B1) Sparsely Vegetated Concave Surface Field Observations:	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Based Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Based Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present?	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Titled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Based Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (Inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Based Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) No Depth (Inches): Water-Stained Leaves (B or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Based Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe) Yes	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (Inches): Water-Stained Leaves (B9) (MiLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MiLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MiLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MiLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B1) Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, minimum)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Based Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B1) Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe) Describe Recorded Data (stream gauge, minimum)	red; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (Inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No

		nountains, valleys, and Coast Region
Project/Site: HAVT Kanch	city/county: Siskiyou Co	8/22/4
Applicant/Owner: Hart Ranch	_ City/Courity:	Sampling Date: 0123/2010
Investigator(s): Andrea Kabe	State: CA Samp Section, Township, Range:	ling Point:
Landform (hillslope, terrace, etc.):	Section, Township, Range:	45N, RSW Sect 1,2+3
Subregion (LRR): MLRA 228 Soil Map Unit Name: 180	Later 122 Local Feller (concave, conve	x, none): On vex Slope (%):
Soil Map Unit Name: 180 Dul	E loan	
Are climatic / hydrologic conditions on the site ty	mical for this time of year? Yes	NWI classification:
Are Vegetation, Soil, or Hydrok	place for this time of year? Tes A No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydroic	DOV NO naturally problematics	"Normal Circumstances" present? Yes X No
		(If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes	No X	t locations, transects, important features, e
Hydric Soil Present? Yes	No X Is the Sampled Area w	
Wetland Hydrology Present? Yes Remarks:	No 👤	
Troinging.	. '	
— Sagel	which winds	
VEGETATION - Use scientific names	of plants.	
Tree Straton (Plot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
(FIOL SIZE:)	% Cover Species? Status	Number of Dominant Species
		That Are OBL, FACW, or FAC: (A)
		Total Number of Dominant
3.		Species Across All Strata: (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Strub Stratum (Plot size: M)	Total Cover	Prevalence Index worksheet:
		Total % Cover of: Multiply by:
· White		OBL species x1 =
		FACW species x 2 =
		FAC species x3 =
	= Total Cours	FACU species x 4 =
erb Stratum (Plot size: \m²)	= Total Cover	UPL species 3D x5= 150
Paronous tectorum	30% V 110L	Column Totals: SO (A) 150B)
	30% 4 41	
		Prevalence Index = B/A =
	1 400 14 NOVE 1	Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	No. 11 to 1500 153 A	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.0¹
		4 * IVIORDITOROGICAL Adaptations' (Provide supporting
		data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation ¹ (Explain)
ody Vine Stratum (Plot size:	SD = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	<u> </u>	p. soons, among distance of problematic.
	4.00	
Woodstell &	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum	100100101	Vegetation Present? Yes No
Bare Ground in Herb Stratum		
narks:		

SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth Remarks Texture Loc2 Color (moist) % Color (moist) (inches) 1548412100 ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) 2 cm Muck (A10) Sandy Redox (S5) Histosol (A1) Red Parent Material (TF2) Stripped Matrix (S6) Histic Epipedon (A2) Very Shallow Dark Surface (TF12) Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Depleted Below Dark Surface (A11) ³Indicators of hydrophytic vegetation and Redox Dark Surface (F6) Thick Dark Surface (A12) wetland hydrology must be present, Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) unless disturbed or problematic Redox Depressions (F8) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Hydric Soil Present? Type: Depth (inches): Remarks: no indicators **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (B9) (MLRA 1, 2, Water-Stained Leaves (B9) (except 4A, and 4B) MLRA 1, 2, 4A, and 4B) Surface Water (A1) Drainage Patterns (B10) Salt Crust (B11) High Water Table (A2) Dry-Season Water Table (C2) Aquatic Invertebrates (B13) Saturation (A3) Saturation Visible on Aerial Imagery (C9) Hydrogen Sulfide Odor (C1) Water Marks (B1) Oxidized Rhizospheres along Living Geomorphic Position (D2) Roots (C3) Sediment Deposits (B2) Shallow Aquitard (D3) Presence of Reduced Iron (C4) Drift Deposits (B3) Recent Iron Reduction in Tilled FAC-Neutral Test (D5) Soils (C6) Algal Mat or Crust (B4) Stunted or Stressed Plants (D1) Raised Ant Mounds (D6) (LRR A) (LRR A) Iron Deposits (B5) Frost-Heave Hummocks (D7) Other (Explain in Remarks) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Depth (inches): No 🦯 Surface Water Present? Wetland Hydrology Present? No Y Depth (inches): Water Table Present? Saturation Present? No A Depth (inches): (includes capillary fringe) Yes Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

no indicators

Remarks:

		nountains, valleys, and Coast Region
Project/Site: Hart Ranch	City/County: Siski Vou Co	2. Sampling Date: 8/23/2016
Applicant/Owner: Hart Ranch Investigator(s): Author Rance Landform (hillslope, terrace, etc.): Terrace	State: CA Samo	line Point:
Investigator(s): Angue a Kane	Section Township Page:	46N 76H 26
Subregion (LRR): MLRA 22R	Later 122 LADE 2/ Languist 1	x, none): None Slope (%):
Soil Map Unit Name:	Lat. [13] TUOLTIT Long:	9524 34 Datum: NAN 3
	A LAN TOTAL OF THE TOTAL AS A CONTRACT OF THE	ishiad alaasiiiaada
The difficulty right conditions on the site typic	Califor this time of year? Yes 🗶 🕏 📈	(If no comicin in Demonto)
Ale vegetation, John _ or mydrolog	V INIX Significantly disturbed? Are	"Normal Circumstances" V
Are Vegetation, Soil, or Hydrolog	y <u>N0</u> naturally problematic?	(If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes	map showing sampling poin	t locations, transects, important features, et
	··· <u>~</u> 1	
1146 4114 4 5 5 5 5	Vo To	
Remarks:		
Trements.	_	
, Koc	iku Plat	
VEGETATION - Use scientific names o	d mlanta	
	r plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
2.		Total Number of Dominant
3		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
kn.	= Total Cover	
Sapling/Shrun Stratum (Plot size:)		Prevalence Index worksheet:
1.		1
2.		Total % Cover of: Multiply by:
3.		OBL species x1 =
		FACW species x 2 =
5.		FAC species x 3 =
J		FACU species x 4 =
The second secon	= Total Cover	UPL species (00 x5=22)
Herb Stratum (Plot size: M)		
1. Dramus tectorum	10 Y UPL	Column Totals: 60 (A) 300 (B)
2. Pseudoregneria soicata	50 4 1/01	Prevalence Index = B/A =
3		
4		Hydrophytic Vegetation Indicators:
5.	- 6 . Tr - 76 B	44.
6.		1 - Rapid Test for Hydrophytic Vegetation
7.	No. of 121 Mo. 14 A	2 - Dominance Test is >50%
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 - Prevalence index is ≤3.01
	12 Table 12 1	4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
10.		5 - Wetland Non-Vascular Plants ¹
11	***	Problematic Hydrophytic Vegetation¹ (Explain)
	COO = Total Cover	Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
1.	<u></u>	
2.	2 10 2 20	A second
	= Total Cover	Hydrophytic (1969)
% Bare Ground in Herb Stratum	- Iotal Covel	Vegetation
	1	Present? Yes No
Remarks:		
/milesik2;		

SOIL		Satupliner Polat
Profile Description: (Describe to the	depth needed to document the indicator or co	onfirm the absence of indicators.)
Depth Matrix	Redox Features	Loc ² Texture, Remarks
(inches) Color (moist) %	Color (moist) % Type¹	
D-88 107834 10)	gravel/loam_
8.		too vocily to do
81		TWO TOCKEY O BY
		
		·
		and Grains. ² Location: PL=Pore Lining, M=Matrix.
¹Type: C≈Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered or Coated Sa	
Hydric Soil Indicators: (Applicable t	all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
		2 cm Muck (A10)
— Histosol (A1)	Sandy Redox (S5) Stripped Matrix (S6)	Red Parent Material (TF2)
Histic Epipedon (A2)	Loamy Mucky Mineral (F1) (except MLF	
Black Histic (A3)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Hydrogen Sulfide (A4)		
Depleted Below Dark Surface (A11	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (1 0)	
Restrictive Layer (if present):		
	Hydric Sc	oil Present? Yes No
Type:	- Injurio oc	
Depth (inches):		
Remarks:		
	noindicators	
	110/11/01/00/01/2	
HYDROLOGY		
Wetland Hydrology Indicators:		A all and a Common manufactured
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	red; check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one requ	Water-Stained Leaves (89) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one requi	Water-Stained Leaves (89) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Primary Indicators (minimum of one requi	Water-Stained Leaves (89) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Primary Indicators (minimum of one required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Primary Indicators (minimum of one required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Primary Indicators (minimum of one required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Primary Indicators (minimum of one required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) B7) (B8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface) Field Observations:	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) B7) (B8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present?	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) B7) (B8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Vater Table Present? Water Table Present? Saturation Present? (includes capillary fringe) Yes	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (Inches): No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Vegetated Concave Surface Water Present? Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) B7) (B8) Depth (Inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Vegetated Concave Surface Water Present? Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (Inches): No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes Describe Recorded Data (stream gauge, results)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (Inches): No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Vegetated Concave Surface Water Present? Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tifled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (Inches): No Depth (inches): No Depth (inches): No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) etiand Hydrology Present? Yes No
Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes Describe Recorded Data (stream gauge, results)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tifled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (Inches): No Depth (inches): No Depth (inches): No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) etiand Hydrology Present? Yes No
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. 0	77000011	mountains, valleys, and Coast Region
Project/Site: HAVT KANCH	city/county: Siskiyou C	8/22/2042
Applicant/Owner: Hart Ranch	State: CA Samp	Sampling Date: 0/23/70[0
Investigator(s): Andrea Kape	Section Township Pages 7	46 1 611 801
Landform (hillslope, terrace, etc.): \ talla.	l and selled to a series	
Sublegion (ERA).	Latt Gab. 401 7411 one: 41 (ARCING DALL. MARRO
On Mich Cult Marile. 1 / / [Int. W. L. 14/10]	THE REPORT OF THE PROPERTY OF	A MA (C L L
Are curriatic / hydrologic conditions on the site type	ical for this time of year? Yes V	/Managements to Physics 100
And regererion, or Hydroids	97 INO significantly disturbed? Are	"Normal Circumstances process Von Y
Are Vegetation, Soil, or Hydrolog	By No naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit		•
Hydrophytic Vegetation Present? Yes .	No X	t locations, transects, important features, et
	No is the Sampled Area w	ithin a Wetland? Yes No
	No Sec	
Remarks:		
	Shelf above	dicainan
	DITCH GODDE	cordinage
VEGETATION - Use scientific names	of plants.	. 0
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
•	= Total Cover	(10)
Sapling/Shrub Stratum (Piot size:)	- 10tal Cover	Prevalence Index worksheet:
1.		_Total % Cover of: Multiply by:
2.		OBL species x1=
3		FACW species x2 =
		FAC species x3 =
		FACU species x4=
lerb Stratum (Plot size: \m2	= Total Cover	UPL species 20 x5 = 100
	20 11 110	Column Totals: (A) (O) (B)
- Browns tectorum	UPL	, ,
		Prevalence Index = 8/A =
		Hydrophytic Vegetation Indicators:
	e discourse with the	rn :
	he is according to	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
		3 - Prevalence Index is <3.01
	The state of the s	4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation ¹ (Explain)
oodv Vine Stratum (Plotsize:	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
11 tousing	Ĺ	be present, unless disturbed or problematic.
	A Section of	***
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum	10000000	Vegetation Present? Yes No
		Present? Yes No
marks:		
		1
		ĺ

SOIL	Samalina Egipt O 10/
Profile Description: (Describe to the depth needed to document the in	ndicator or confirm the absence of indicators.)
Depth Matrix Redox Fe	atures
(inches) Color (moist), % Color (moist) %	Type Loc Toxasio
0-9 1046314 100	gravellam
9+	too rodultodia
W1	
¹ Type: C=Concentration, D=Depletion, RM≃Reduced Matrix, CS=Covered	or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise not	ted.) Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2) Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3) Loamy Mucky Mineral (F1	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and
Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F	
Sandy Mucky Mineral (S1) Depleted Dark Surface (F Sandy Gleyed Matrix (S4) Redox Depressions (F8)	unless disturbed or problematic
Sandy Gleyed Matrix (54)	
Restrictive Layer (if present):	✓
Type:	Hydric Soil Present? Yes No
Depth (inches):	
Remarks:	1
1	
i i i i i i i i i i i i i i i i i i i	
no indicatore	
no indicators	
HYDROLOGY Wetland Hydrology indicators:	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves	Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves Surface Water (A1) MLRA 1, 2, 4A, and 4	(B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves Surface Water (A1) High Water Table (A2) MLRA 1, 2, 4A, and 4 Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves Water-Stained Leaves MLRA 1, 2, 4A, and 4 High Water Table (A2) Salt Crust (B11) Aquatic Invertebrates	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) (B13) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves Water-Stained Leaves MLRA 1, 2, 4A, and 4 High Water Table (A2) Salt Crust (B11) Saturation (A3) Water Marks (B1) Hydrogen Sulfide Odd	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) (B13) (B13) (B13) (C1) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves Water-Stained Leaves MLRA 1, 2, 4A, and 4 High Water Table (A2) Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) (B13) (B13) (B13) (C1) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary 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) Wetland Hydrology Indicators: Water All that apply) Water-Stained Leaves MLRA 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) (B13) (B13) or (C1) as along Living Geomorphic Position (D2) Shallow Aquitard (D3)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves Water-Stained Leaves MLRA 1, 2, 4A, and 4 High Water Table (A2) Salt Crust (B11) Aquatic Invertebrates Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) (B13) (B13) or (C1) as along Living Geomorphic Position (D2) Shallow Aquitard (D3)
HYDROLOGY Wetland Hydrology Indicators: Primary 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) Wetland Hydrology Indicators: Water Adjustic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) (B13) (B13) or (C1) as along Living Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary 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) Wetland Hydrology Indicators: Water All that apply) Water Stained Leaves MLRA 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed F	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) (B13) (B13) (C1) Saturation Visible on Aerial Imagery (C9) Firon (C4) In in Tilled Plants (D1) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary 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) Iron Deposits (B5) Wetland Hydrology Indicators: Water All that apply) Water All that apply) Water Stained Leaves MLRA 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Odd Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed F (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) (B13) (B13) (C1) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Saturation Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; 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) Iron Deposits (B5) Surface Soil Cracks (B6) Wetland Hydrogen Sulfide Odd Oxidized Rhizosphere Recent Iron Reduction Soils (C6) Stunted or Stressed Fundamental Carlot (LRR A) Other (Explain in Ren	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) (B13) (B13) (C1) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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HYDROLOGY Wetland Hydrology Indicators: Primary 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) Iron Deposits (B5) Surface Soil Cracks (B6) Wetland Hydrogen Sulfide Odd Oxidized Rhizosphere Recent Iron Reduction Soils (C6) Stunted or Stressed Fundamental Carlot (LRR A) Other (Explain in Ren	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) (B13) (B13) (C1) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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		Mountains, Valleys, and Coast Region
Project/Site: HAV+ ROACH	City/County Siski Vinu P	0. Sampling Date: 8/23/2016
Applicant/Owner: Hart Ranch	States CA	Sampling Date: 0/23/2016 Sing Point: 276 Solve Sect (12+3)
Investigator(s): And La Ka log :	State: CA Samp	oling Point:
Landform (hillstone torrose etc.): VCCLL	Section, Township, Range:	45N, K5W Sect 1,2+3
Landform (hillslope, terrace, etc.): Valle Subregion (LRR): MLRA 22R	Local relief (concave, conve	ex, none): Concave Slope (%): 5
Soil Map Unit Name: 177 (141) CHC	2DOXEVOILS ROCK OUTCOD	NWI classification:
A STATE OF THE STA	Diudi iul inis time of vesty vee 🔻 Kia	(Management 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
	AND THE SIGNIFICATION PROFILED AND	"Normani Oleanna atau a a a a V
Are Vegetation, Soil, or Hydrold	99 NO naturally problematic?	(If needed explain any answers in Remarks)
SUMMARY OF FINDINGS - Attach si	te map showing sampling poin	t locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes		
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No Is the Sampled Area w	ithin a Wetland? Yes No
	140	
Remarks:	44	
alaw N Ju	y, springflow	Le market
	24	30000
VECETATION LINE and will		
VEGETATION - Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC:(A/B)
	7-1-10	
Sapling/Shrub Stratum (Plot size:)	= Total Cover	
		Prevalence index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x1=
3.		FACW species x 2 =
		FAC species x3 =
i		1
	= Total Cover	FACU species x 4 =
lerb Stratum (Plot size: [m2]	100000	UPL species x 5 =
		Column Totals: (A) (B)
	* 8 W.	
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	Se la periode 193	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.0¹
	1 284	4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
0	The state of the s	5 - Wetland Non-Vascular Plants ¹
1	1	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	
foody Vine Stratum (Piot size:	= 10tal Cover	Indicators of hydric soil and wetland hydrology must
	Ĺ	be present, unless disturbed or problematic.
		(a) (a) (A) (A)
		The state of the s
Pore Consulting that the state of	= Total Cover	Vegetation
Bare Ground in Herb Stratum		Present? Yes. No.
	Janip	Na Ca
emarks:	proble maticipes	Hydrophytic Vegetation Present? Yes No
00 v 81 3	rous Jaman Lies	MI die volla si viva
dry	Dropu (Dy	San Plus, "you,
	ADO.	OD TO COL
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

SOIL	Sampling Point 470
Profile Description: (Describe to the depth needed to document the in Denth Matrix Redox Fer	dicator or confirm the absence of indicators.)
Depth Matrix Redox Fed (inches) Color (moist) % Color (moist) %	Type Loc ² Texture Remarks
D-8 104834 100	gravel lagin
8-18	-too rocky to dia
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise not	ed.) Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Redox (S5)	2 cm Muck (A10) Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Loamy Mucky Mineral (F1)	(except MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Matrix (F3) Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7	wetland hydrology must be present, unless disturbed or problematic
Sandy Gleyed Matrix (S4) Redox Depressions (F8)	unless disturbed of problematio
Restrictive Layer (If present):	Hydric Soil Present? Yes X No
Type:	Hydric Soil Present? Yes X No
Depth (Inches):	O . WX
Remarks:	withinflood alaring Ryes
vegetated sand/gravel i	mysussions blam of their
and alarage partering	₩ a/\$
HYDROLOGY	963
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary indicators (minimum of one required; check all that apply) Water-Stained Leaves	(B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
Surface Water (A1) — MLRA 1, 2, 4A, and 4 High Water Table (A2) — Salt Crust (B11)	B) 4A, and 4B) Drainage Patterns (B10)
Saturation (A3)	(B13) Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odo	(B13) Dry-Season Water Table (C2) or (C1) Saturation Visible on Aerial Imagery (C9)
Water Marks (B1) Hydrogen Sulfide Odo Oxidized Rhizosphere	(B13) or (C1) s along Living Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced	(B13) or (C1) s along Living lron (C4) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Secomorphic Position (D2) Shallow Aquitard (D3)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction	(B13) or (C1) s along Living Iron (C4) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) A Geomorphic Position (D2) Shallow Aquitard (D3)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductior Soils (C6) Stunted or Stressed P	(B13) or (C1) s along Living liron (C4) in Tilled Plants (D1) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductior Soils (C6) Stunted or Stressed P	(B13) In (C1) In (C1) In a salong Living In (C4) In in Tilled Plants (D1) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imagery (B7) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductior Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem	(B13) In (C1) In (C1) In a salong Living In (C4) In in Tilled Plants (D1) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductior Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem	(B13) In (C1) In (C1) In a salong Living In (C4) In in Tilled Plants (D1) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem	(B13) In (C1) In (C1) In a salong Living In (C4) In in Tilled Plants (D1) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem Other (Explain in Rem Sparsely Vegetated Concave Surface (B8)	(B13) or (C1) s along Living Iron (C4) in in Tilled Plants (D1) narks) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem Depth (Inches): Depth (Inches):	(B13) or (C1) s along Living lron (C4) in in Tilled Plants (D1) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductior Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem Depth (Inches): Depth (Inches):	(B13) or (C1) salong Living Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Plants (D1) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Saturation Present? Water Marks (B1) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reduction Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem Depth (Inches): Depth (Inches):	(B13) or (C1) salong Living Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Plants (D1) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductior Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem Depth (Inches): Depth (Inches):	(B13) or (C1) salong Living Iron (C4) or in Tilled Plants (D1) narks) Wetland Hydrology Present? Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes \times No
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (Includes capillary fringe) Hydrogen Sulfide Odo Oxidized Rhizosphere Roots (C3) Presence of Reduced Recent Iron Reductior Soils (C6) Stunted or Stressed P (LRR A) Other (Explain in Rem Depth (Inches): Depth (Inches):	(B13) or (C1) salong Living Iron (C4) or in Tilled Plants (D1) narks) Wetland Hydrology Present? Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes \times No
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Water Table Present? (includes capillary fringe) Yes No Depth (Inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous conditions on the condition of	(B13) or (C1) s along Living lron (C4) in in Tilled Plants (D1) narks) Wetland Hydrology Present? Wetland Hydrology Present? Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Ves X No Ous inspections), if available:
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Saturation Present? (includes capillary fringe) Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous forms and the provided recorded page of the provided Recorded Potos, previous control of the present of the pres	(B13) Ir (C1) Is along Living Iron (C4) In In Tilled Plants (D1) Inarks) Wetland Hydrology Present? Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Yes No

		Mountains, valleys, and Coast Region
Project/Site: Hart Kanch	city/county: Siski you C	8/22/2010
Applicant/Owner: Hart Ranch	State: CA Some	Sampling Date: 0/23/2010
Applicant/Owner: Hart Ranch Investigator(s): Andrea Rance Landform (hillslope, terrace, etc.): Valley	Section, Township, Range:	45N R 5W Sect (2-1-2
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, conve	ex, none): Con Calle Slope (%): 2
	FOR 1530-154131 W DUBY I DUU, ME 1 2 102	"ISI SI Detum: NIGH Y J
Continue Child Harries	ENTERIO SEPTIOLIS - CONTOL AND MARK	@ MAII classification:
Are climatic / hydrologic conditions on the site typi	ical for this time of year? Yes Y No.	(If no explain in Demants)
The vegetation, July, or Hydrolog	IV IVI) Significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrolog	N ND naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site	man showing sampling nain	t locations, transects, important features, etc
	No	t locations, transects, important features, etc
	No Is the Sampled Area w	ithin a Wetland? Yes 🖳 No
Remarks:	NO	
draw		
(Draw)		
VEGETATION - Use scientific names of	of plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
1	% Cover Species? Status	Number of Dominant Species
2.		That Are OBL, FACW, or FAC: (A)
3.		Total Number of Dominant Species Across All Strata: (B)
4.		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum Plot size:)		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x 1 =
3 4.		FACW species x2=
5.		FAC species x 3 =
. 4	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: Lm2)		UPL species x 5 =
		Column Totals: (A) (B)
		Prevalence Index = B/A =
	· · · · · · · · · · · · · · · · · · ·	Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	No. 13, Let MA	2 - Dominance Test is >50% 3 - Prevelence Index is <3.01
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 1 TOTALISTIC 1120X 16 20.0
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
0		5 - Wetland Non-Vascular Plants ¹
1		Problematic Hydrophytic Vegetation¹ (Explain)
Control Vine Communication (Control Vine Communication (Co	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
/oody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
-	73 (# 1 % 1 4 95	10000000000000000000000000000000000000
I.	A 16 to 20 mass	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Monototlan
	ا دم الامم	Present? Yes No
emarks:	- III	Arydramack ift of the distance
no ves	wood man is	dryote - 25
My Try	COO DI	C. Jumpor allian
<u> </u>	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	a) The ripe

OIL			સુદો હતા હો (તેણ ને રાગો હ	
Profile Description: (Describe to the d	epth needed to document the indi	icator or confirm the	absence of indicators.)
Depth Matrix	Redox Feati	ures	Texture	Remarks
(inches) Color (moist) %	Color (moist) %	Type Loc ²	A	
n-8 loyesiy inc			GYAVE / 100	%
7.10			a market line	dia
			o rocky to	<u> </u>
44-				
**				
	=:0			•
<u></u>				<u></u>
¹ Type: C=Concentration, D=Depletion, F	M=Reduced Matrix CS=Covered o	r Coated Sand Grains	² Location: PL=Pore	Lining, M=Matrix.
			dicators for Problemat	
Hydric Soil Indicators: (Applicable to	all LRRs, unless otherwise noted	I.) In		iic nyuric oone .
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Su	rrace (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	X	Other (Explain in Rem	iarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)			
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydroph	ytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology mu	
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or pr	opiematic
			1/	
testrictive Layer (if present):			X X	No
Type:		Hydric Soil Present	? Yes	NO
Depth (inches):				
YDROLOGY			rainage	
Wetland Hydrology Indicators:				more required)
Primary Indicators (minimum of one requir	ed; check all that apply)		condary Indicators (2 or Water-Stained Leaves	(RQ) (MI RA 1, 2.
	Water-Stained Leaves (F		4A, and 4B)	(DS) (MICION 1) =1
Surface Water (A1)	MLRA 1, 2, 4A, and 4B)	<u> </u>	Drainage Patterns (B10	11
High Water Table (A2)	Salt Crust (B11)		Dry-Season Water Tab	7) le (C2)
Saturation (A3)	Aquatic Invertebrates (B	13)	Saturation Visible on A	erial Imagery (C9)
Water Marks (B1)	Hydrogen Sulfide Odor (Saturation visible on A	Brian imagory (00)
	Oxidized Rhizospheres	along Living	Geomorphic Position (I	02)
Sediment Deposits (B2)	Roots (C3)	on (C4)	Shallow Aquitard (D3)	/
_ Drift Deposits (B3)	Presence of Reduced Iro		milenta cidentele (mg)	
A11.84-4 O4 /D 43	Recent Iron Reduction in	i i iliou	FAC-Neutral Test (D5)	
_ Algal Mat or Crust (B4)	Soils (C6) Stunted or Stressed Plan	nts (D1)		
ton Bonnelle (DE)	(LRR A)	11to (D1)	Raised Ant Mounds (D	6) (LRR A)
Iron Deposits (B5)	Other (Explain in Remar	te)	Frost-Heave Hummock	s (D7)
Surface Soil Cracks (B6)				· ·
Inundation Visible on Aerial Imagery (E)			
Sparsely Vegetated Concave Surface	(55)			
Field Observations:				
	lo K Depth (inches):			V
	No Depth (inches):	Wetland Hy	drology Present? Y	'es 🙁 No
Saturation Present?	J-			
	No Depth (inches):			
escribe Recorded Data (stream gauge, m		is inspections), if avail	able:	
2001-1-2 10001-200 2000 400 2011 2-020 W		-		
emarks:				
	wa		£."	
	Seasor	Who you	1000110	

. 0	1100(011)	nountains, valleys, and Coast Region
Project/Site: HAN Kanch	city/county: Siskiyou a	9. Sampling Date: 8/23/20110
Applicantowner: TTUTT SUNCK	State: (A Samo	ling Point: 286
Investigator(s): Andrea Kabe	Section Township Pages 71	45N, RSW Sect 1,2+3
Landform (hillslope, terrace, etc.): Valle	Local relief (concave, conve	x, none): CONJEX Slope (%);
Subregion (LRR): MLRA 22B	Lat: 122,411 8.361 one: 41 (C	SAA To Datum NAA 82
Soil Map Unit Name:	TO AN OLOGICAL METHOD A	NRA/I place/Free/inn
Are chimate in the site	IVDICAL for this time of year? Vec V No.	/Idea a second to the second t
Are Vegetation, Soil or Hydr	rology Nn significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil or Hydr	plogy ND naturally problematic?	No
		(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach	site map showing sampling poin	t locations, transects, important features, etc
	<u> </u>	
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No is the Sampled Area w	ithin a Wetland? Yes No
	_ No _	
Remarks:		
	1 10 alan	w. m. \
	shelfaboue d	raw
VEGETATION Has aslandid	· ·	
VEGETATION - Use scientific name	es of plants.	
Tono Charles MCI-1-1	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2,		Total Number of Dominant
3		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
E # mg	= Total Cover	
Sapling/Shrub Stratum (Plot size: (M)	10000	Prevalence Index worksheet:
1. Chrusatham nus nausi	DAMA 30 VIDL	
2,	STATES SO Y OF S	
3.		OBL species x1 =
4.		FACW species x 2 =
5		FAC species x3 =
	100 A. T.	FACU species x 4 =
dark Stratum (Slat in 1) 2	= Total Cover	UPL species 50 x 5 = 250
Herb Stratum (Plot size: M)		
Bramus tectorum	w VPG	Column Totals: SD (A) ZSD (B)
2,		Prevalence Index = B/A =
		3
		Hydrophytic Vegetation Indicators:
	- G . C . De C	k mg
		1 - Rapid Test for Hydrophytic Vegetation
	50 32 2005 3	2 · Domlnance Test is >50%
	W. (2)	3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations (Provide supporting
0.		data in Remarks or on a separate sheet)
1.		5 - Wetland Non-Vascular Plants1
		Problematic Hydrophytic Vegetation¹ (Explain)
family the same of	SD = Total Cover	¹ Indicators of hydric soil and wetland hydrology must
/oodv Vine Stratum (Plot size:)	1	be present, unless disturbed or problematic.
* Political and the state of th	the state of the state of	Hudranhydia (1997)
	= Total Cover	Tiyaropriyuc
Bare Ground in Herb Stratum		Vegetation
	-	Present? Yes No
emarks:		
Aligha.		
		1

COLL			Seran interior Policies	28b
SOIL Profile Description: (Describe to t	he denth needed to document th	e indicator or confirm t	ne absence of indicators.)	,
Depth Matrix	Redox	Features		
(inches) Color (moist)	% Color (moist) %			Remarks
O O TOVERN	100		_ gravel(loan	^
	100			10
9-18			DOADCIAL is a	<u> </u>
			<u></u>	<u> </u>
		_ 		
	-			
¹ Type: C=Concentration, D=Depleti	on, RM=Reduced Matrix, CS=Cove	red or Coated Sand Grai		
Hydric Soil Indicators: (Applicat	ole to all LRRs, unless otherwise	noted.)	Indicators for Problematic	Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (TF2	2)
Black Histic (A3)	Loamy Mucky Mineral	(F1) (except MLRA 1)	Very Shallow Dark Surfa	ce (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) _	Other (Explain in Remark	(8)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)	•••	3Indicators of hydrophytic	hae anietation and
Thick Dark Surface (A12)	Redox Dark Surface (F		wetland hydrology must t	he present.
Sandy Mucky Mineral (S1)	Depleted Dark Surface		unless disturbed or probl	ematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F	P)	dinos distance a presi	
Restrictive Layer (if present):				\checkmark
_		Hydric Soll Pres	ent? Yes	No 🔼
		1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Depth (inches):				
Remarks:				
		. , \		
		VOU CON	recetors	
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of one r	equired; check all that apply)		Secondary Indicators (2 or mo	re required)
	Water-Stained Lea	ves (B9) (except	Water-Stained Leaves (B9 4A, and 4B)) (MILICAL 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, an	d 48)	Drainage Patterns (B10)	
High Water Table (A2)	Salt Crust (B11)		Dry-Season Water Table ((C2)
Saturation (A3)	Aquatic Invertebrate Hydrogen Sulfide ((85 (D13)	Saturation Visible on Aeria	i Imagery (C9)
Water Marks (B1)	Oxidized Rhizosph			
Sediment Deposits (P2)	Roots (C3)	idios along Living	Geomorphic Position (D2)	
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduc	ced Iron (C4)	Shallow Aquitard (D3)	
Dilit Deposits (B3)	Recent Iron Reduc			
Algal Mat or Crust (B4)	Soils (C6)	_	FAC-Neutral Test (D5)	
	Stunted or Stresse	ed Plants (D1)	mata at Austrian and (DC)	(IDD A)
iron Deposits (B5)	(LRR A)	8 <u>=</u>	Raised Ant Mounds (D6)	
Surface Soil Cracks (B6)	Other (Explain in F	Remarks)	Frost-Heave Hummocks (ויוט
Inundation Visible on Aerial Image	ery (B7)			
Sparsely Vegetated Concave Sur	face (B8)			
		<u> </u>		
Field Observations:	No. X. Danth /Sachash			¥
Surface Water Present? Yes	No Depth (inches):	Wetland	Hydrology Present? Yes	No
Water Table Present? Yes	No Depth (inches):			
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):			
Describe Recorded Data (stream gaug	ne monitoring well serial photos n	revious inspections), if a	/ailable:	
Describe Recorded Data (stream gaut	16' Hioring Men' action business b			
Remarks:				
		\0.0	the state of the state of	بكمين
1		V 1 (**	A PART OF THE PART	No.
		110	indicator	3

TIETERNO DE LEKIMINATIO	Y DATA FORM - Western N	flountains, Valleys, and Coast Region
Project/Site: Hart Ranch City	County: Siskiyou Co	Sampling Date: 8/23/2010
integatigator(s), This LAT /L A /L V II	Section Tournalin Dance.	
Lat.	MALE MERCHANISM CONTRACTOR OF THE CONTRACTOR OF	MONUS D. MINN NO
Are climate / hydrologic conditions on the site typical fr	or this time of year? Voc. VI No.	//6
, and together, or mydrology [7]	Significantly disturbed? Are	"Normal Circumstances" present? Yes X
, or Hydrology E	naturally problematic?	(If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes No	ap showing sampling point	locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	Is the Sampled Area wi	
Remarks:	-	
	1	
above	draw	
VEGETATION - Use scientific names of pl	ants	
	bsolute Dominant Indicator	Dominance Test worksheet:
1	6 Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3.		Total Number of Dominant Species Across Ali Strata: (B)
4.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
-	- T-1/1 0	(705)
Sapling/Shrub Stratum (Piot size:)	= Total Cover	Prevalence Index worksheet:
1		
2.		Total % Cover of: Multiply by:
3.		OBL species x1 =
4.		FACW species x 2 =
5.		FAC species x 3 =
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 1 2)	rotal Cover	UPL species SO x 5 = 250
Bromus tectorum 30		Column Totals: (A) 250 (B)
Signifium altissimum a	VI UPC	Prevalence Index = B/A =
		I revalence index = D/A =
		Hydrophytic Vegetation Indicators:
•	Fig. 1. The regular to	1 - Rapid Test for Hydrophytic Vegetation
	As it is stopped to be a	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.0¹
	1 (1944) (195)	4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
D		5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation¹ (Explain)
oody Vine Stratum (Plot size:)	= Total Cover	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	4.6	Hydrophytic
Bare Ground in Herb Stratum 50	= Total Cover	Hydrophytic Vegetation Present? Yes No
emarks;		
		1
		1

busels becauseling (Deposite to the death recoded to deciment the	Sampling 2011 CX [U]
Profile Description: (Describe to the depth needed to document the Depth Matrix Redox F	Features
Depth Matrix Reduktion (inches) Color (moist) % Color (moist) %	Townships
D-12 10 YR6/2 100	sandy loam
	sand/ Cemented hardpan
12-18 104R412 100	suno f Cemente a nai apun
•	
	2/ Display Manual States
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covere	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise n	oted.) Indicators for Problematic Hydric Soils ³ :
Courty Daday (DE)	2 cm Muck (A10)
Histosol (A1) Histic Epipedon (A2) Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3) Loamy Mucky Mineral (F	F1) (except MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2	2) Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)	3. II. to a fit of the standard from and
Thick Dark Surface (A12) Redox Dark Surface (F6	
Sandy Mucky Mineral (S1) Depleted Dark Surface (* * * * * * * * * * * * * * * * * * *
Sandy Gleyed Matrix (S4) Redox Depressions (F8)) difficult distributed by protection
Restrictive Layer (if present):	
	Hydric Soil Present? Yes No
Type: Depth (inches):	
emarks;	
no indicator	
IYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply) Water-Stained Leave	
Surface Water (A1) MLRA 1, 2, 4A, and	14B) 4A, and 4B)
High Water Table (A2) Salt Crust (B11)	Drainage Patterns (B10)
Saturation (A3) Aquatic Invertebrate	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Oc	dor (C1) Saturation Visible on Aerial Imagery (C9)
Oxidized Rhizosphe	eres along Living
	Geometric Position (D2)
Sediment Deposits (B2) Roots (C3)	Geomorphic Position (D2)
Sediment Deposits (B2) Roots (C3) Presence of Reduce	Geomorphic Position (D2) ed Iron (C4) Shallow Aquitard (D3)
Sediment Deposits (B2) Roots (C3) Presence of Reduce Recent Iron Reducti	ed Iron (C4) Shallow Aquitard (D3)
Sediment Deposits (B2) Drift Deposits (B3) Aloal Mat or Crust (B4) Roots (C3) Presence of Reduction Recent Iron Reduction Reduction Reduction Recent Iron	Geomorphic Position (D2) ed Iron (C4) Shallow Aquitard (D3) ion in Tilled FAC-Neutral Test (D5)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Roots (C3) Presence of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed	Geomorphic Position (D2) ed Iron (C4) Shallow Aquitard (D3) ion in Tilled FAC-Neutral Test (D5) d Plants (D1) Raised Ant Mounds (D6) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A)	Geomorphic Position (D2) ed Iron (C4) Shallow Aquitard (D3) ion in Tilled FAC-Neutral Test (D5) d Plants (D1) Raised Ant Mounds (D6) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Roots (C3) Presence of Reducti Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Ref	Geomorphic Position (D2) ed Iron (C4) Shallow Aquitard (D3) ion in Tilled FAC-Neutral Test (D5) d Plants (D1) Raised Ant Mounds (D6) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A)	Geomorphic Position (D2) ed Iron (C4) Shallow Aquitard (D3) ion in Tilled FAC-Neutral Test (D5) d Plants (D1) Raised Ant Mounds (D6) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Roots (C3) Presence of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference of Reduce Recent Iron Reduction Recent Iron Recent I	Geomorphic Position (D2) ed Iron (C4) Shallow Aquitard (D3) ion in Tilled FAC-Neutral Test (D5) d Plants (D1) Raised Ant Mounds (D6) (LRR A)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference (B8)	Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Roots (C3) Presence of Reduce Recent Iron Reduction Reduction Reduction Reduction Reduction Recent Iron Reduction Stressed (LRR A) Other (Explain in Resenting Present Recent Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Geomorphic Position (D2) Shallow Aquitard (D3) ion in Tilled FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Presence of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Reduce Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Reduce Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Reduce Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Reduce Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Recent Iron Reduction Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference Of Recent Iron Reduction Soils (LRR A) Other (Explain In Reference Of Recent Iron Reduction Soils (LRR A) Other (Explain In Reference Of Recent Iron Reduction Soils (LRR A) Other (Explain In Reference Of Recent Iron Reduction Soils (LRR A) Other (Explain Iron Reference Of Recent Iron Reduction Soils (LRR A) Other (Explain Iron Reference Of Recent Iron Reduction Soils (LRR A) Other (Explain Iron Reference Of Recent Iron Reference Of	Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Plants (D1) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Saturation Present? Presence of Reduce Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reservation In In Reservation In Reservation In Reservation In In In In In In I	Geomorphic Position (D2) Shałlow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Ves No Depth (Inches): Separation Present? Ves No Depth (Inches): Depth (Inches):	Geomorphic Position (D2) Shallow Aquitard (D3) ion in Tilled FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Ves No Depth (Inches): Separation Present? Ves No Depth (Inches): Depth (Inches):	Geomorphic Position (D2) Shallow Aquitard (D3) ion in Tilled FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Saturation Present? Recent Iron Reducti Soils (C6) Stunted or Stressed (LRR A) Other (Explain In Reference (B8)) Depth (inches): Depth (inches):	Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (Inches): Saturation Present? Yes No Depth (Inches): Saturation Present? (includes capillary fringe) Yes No Depth (Inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, present)	Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Depth (inches): Saturation Present? Saturation Present? (includes capillary fringe) Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, present)	Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (Inches): Saturation Present? (includes capillary fringe) Yes No Depth (Inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, presents:	Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No

^	THE BATTAL OIGH - WESTELL	viountains, valleys, and Coast Region
Project/Site: Hart Kanch	city/county: Siskiyou C	8/22/2011
Applicant/Owner: Hart Ranch Investigator(s): Mula Rance Landform (hillistope, terrace etc.): A VC	State: CA Some	Inc Point
Investigator(s): Angue a Rape	Section Township Pance	ACN ZCIA
Subregion (LRR): MLRA 22R Soil Man Unit Name: 160 010 26/1/4	Local feller (concave, conve	x, none): CON AN Slope (%):
Soil Map Unit Name: 154 0024/19	Long: 4 Long: 4	WWI classification:
Are climatic / hydrologic conditions on the site ty	mical for this time of the A	*NVVI classification:
Are Vegetation Soll or Hydrole	pical for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydroic	significantly disturbed? Are	"Normal Circumstances" present? Yes No
your just just in the second	130 Haturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach si	te man showing sampling poin	t locations, transects, important features, etc
		t locations, transects, important features, etc
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No is the Sampled Area w	ithin a Wetland? Yes No No
	No	
Remarks:		
	1 >	
	- WAW	
VEGETATION - Use pointific name	-0.1	
VEGETATION - Use scientific names	or plants.	
Tree Stratum (Riot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
3		Total Number of Dominant
3.		Species Across Ali Strata: (B)
4.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		(A/B)
Danilla (Ohart Chart)	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x 1 =
3.		FACW species x 2 =
		FAC species x3 =
j		FAOUL
1.0-2	= Total Cover	
lerb Stratum (Plot size: 1m2)		7.0
		Column Totals: (A) (B)
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 - Rapid Test for Hydrophytic Vegetation
	Na Sz. Jennież w S	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.0¹
	30/ ₂ × 1	4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
)		5 - Wetland Non-Vascular Plants¹
	100000	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	
oody Vine Stratum (Plot size:)		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	-	
	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	The state of the s
44:	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum	Total Cover	Vegetation
	Draw	Yes No
marks:	of bopponers.	Champoral Mo
Ne.	M COND MA	10 all of all and will
No 7	and and	Circular Variation
1, 7,	IN TO ME T.	A KI ON
		(PC) (18)

SOIL						কুলিলানে চিনামু	
Profile Description: (Describ	e to the depti	h needed to docum	ent the inc	dicator or co	nfirm the	absence of indicators.)	·
Depth Matrix	(Redox Fea	tures	Loc²	Texture	Remarks
(inches) Color (moist)	%	Color (moist)	<u>%</u>	Type	LOC		
0-H 104R6/2	100					Sanayloan	7 / 7 / 8 /
4418 1048412		572416	10			M-CO	mented Link
7718 10/2/10	70	972-70	7 9				
	:						
					•]
			/				
¹ Type: C=Concentration, D=De	. ——— epletion, RM≍	Reduced Matrix, CS	S=Covered of	or Coated Sa	nd Grains.	² Location: PL=Pore	Lining, M=Matrix.
						dicators for Problemati	ic Hydric Soils ³ :
Hydric Soil Indicators: (App				a.;	1111		o tiyano oono t
Histosol (A1)	_	X Sandy Redox (S	55)			2 cm Muck (A10)	.E3)
Histic Epipedon (A2)	-	Stripped Matrix	(S6)	/ A BAL E		Red Parent Material (T Very Shallow Dark Sur	face (TE12)
Black Histic (A3)	_	Loamy Mucky M		(except mr	(A 1)	Other (Explain in Rema	arks)
Hydrogen Sulfide (A4)	(444)	Loamy Gleyed N Depleted Matrix			_	Otto: (Espian in Floring	,
Depleted Below Dark Surf Thick Dark Surface (A12)		Redox Dark Sur				3Indicators of hydrophy	tic vegetation and
Sandy Mucky Mineral (S1		Depleted Dark S)		wetland hydrology mus	st be present,
Sandy Micky Mintels (S1)	<u> </u>	Redox Depressi		•		unless disturbed or pro	blematic
				1			
Restrictive Layer (if present):							
				Hydric So	il Present	? Yes	No
Depth (inches):						* -	
Remarks:							
	 .				<u></u>		
HYDROLOGY				 			
Wetland Hydrology Indicators Primary Indicators (minimum of	: nna required: :	check all that apply)			Sec	ondary Indicators (2 or n	nore required)
Filliary indicators (filliamor) or	one required,	Water-Stain	ed Leaves	(B9) (except		Water-Stained Leaves (I	89) (MLRA 1, 2,
Surface Water (A1)		MLRA 1, 2,	4A, and 4E	j) ()		4A, and 4B)	
High Water Table (A2)		Salt Crust (E	311)			Drainage Patterns (B10)	
Saturation (A3)		Aquatic Inve	ertebrates (l	B13)		Dry-Season Water Table Saturation Visible on Ae	ð (CZ) vial Imanen/ (CQ)
Water Marks (B1)		Hydrogen S				Saturation visible on Ae	itat imagery (Co)
			lizospheres	along Living		Geomorphic Position (D	2)
Sediment Deposits (B2)		Roots (C3) Presence of	E Paducad I	ron (CA)		Shallow Aquitard (D3)	-,
Drift Deposits (B3)		Recent Iron					
Algal Mat or Crust (B4)		Soils (C6)	11000011011			FAC-Neutral Test (D5)	
Algar Wat of Order (D4)		Stunted or S	Stressed Pla	ants (D1)			
Iron Deposits (B5)		(LRR A)				Raised Ant Mounds (D6) (LRR A)
Surface Soil Cracks (B6)		Other (Expla	aln in Rema	arks)	-	Frost-Heave Hummocks	\$ (D7)
Inundation Visible on Aerial I	magery (B7)						
Sparsely Vegetated Concave	e Surface (B8))					
Field Observations:		Double (inches	. 6	200			
Surface Water Present? Ye		Depth (inches Depth (inches			etland Hvo	Irology Present? Ye	as XNo
Water Table Present? Ye	s X No	Depth (inches	<i>)</i>	···	etiana rije	101083 1 1000	
Saturation Present? (includes capillary fringe) Ye	s X No	Depth (inches):	ļ			
(includes capillary fringe) Ye Describe Recorded Data (stream				us inspection	ns), if availa	able:	
Describe Recorded Data (stream	Aanae' moun	omig wen, acital pri	araal brasia	as maposioi	,,	1 * '	
						···	
Remarks:							

Projectists: HAR RANGE City/County: Siste City Sampling Date: S023/2016 Applicant/Owner: Hart Range City County: State: City Sampling Project City County: State: City Sampling Project City Sampling Project City City City City City City City Cit		Mountains, Valleys, and Coast Region
Sinter Marka Kalva Section Township Range Section Se	Project/Site: Hart Kanch City/County: Siski Vou	9 Sampling Date: 8/23/2011/2
Landform (hillslope, terrace, etc.): TYMACE Local relief (concave, convex, none): CONVEX Stope (%): Subregion (LRR): MLRA 22 B Lat 130 4013 3 Long: 1470024/33 Datum: MARS 3 Subregion (LRR): MLRA 22 B Lat 130 4013 3 Long: 1470024/33 Datum: MARS 3 Are Useration of the site typical for this time of year? YES No (if no, explain in Remints.) Are Vegetation Soil or rhydrology conditions on the site typical for this time of year? YES No (if no, explain in Remints.) SUMMARY OF FINDINGS - Attach site mag showing sampling point locations, transacts, important features, of thydrology registration Present? Yes No Is the Sampled Area within a Wetland? Yes No Yesland Hydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No Yesland Hydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No Yesland Hydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No Yesland Hydrology Present? Yes Yesland Hydrology Prevalence Index worksheet: Total Nove of Dominant Species That Are OBL FACW, or FAC: AB) The Area of Dominant Species Xes Yesland Hydrology Prevalence Index Worksheet: Total Nove of Dominant Species Xes Yesland Hydrology Yeslan	Application wild.	office Political Control of the Cont
Subregion (LRR): MLKA ZB Lat TOYALC Local relief (concave, convex, none): COLVEX Slope (%): Subregion (LRR): MLKA ZB Lat TOYALC LATER AND AV33 Datum: NAN (Sassification: Nan (Sassificat	Investigator(s): Section Township Research	GCN CON STATE
Sold Map Unit Name: ISU Data is Value and Source Interest Value and Source Interest Value and Source Value Va	Landform (hillslope, terrace, etc.):	· 121/1821 Sect 1/243
Soil Map Unit Name: IST ACATHE Variant Sand May 1881 Are dimated frydrologic conditions on the site typical for this time of year? Yes X No (fin o, explain in Remarks.) Are Vegetation Soil on Hydrology 12 significantly distributor? Are Vegetation (Soil on Hydrology 12) significantly distributor? Are Vegetation on Soil on Hydrology 12 significantly distributor? (fin seeded, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site man showing sampling point locations, transects, important features, ethydrophytic Vegetation Present? Yes No	Subregion (LRR): MLRA 228	vex, none): CONVEX Slope (%);
Are climate / hydrologic conditions on the site typical for this time of year? Vs X No (fine, explain in Remarks.) Are Vegetation Soil or Hydrology In significantly disturbed? Are "Normal Circumstances" present? Yes X No (fine, explain in Remarks.) SUMMARY OF FINDINGS - Attach sit many showing sampling point locations, transacts, important features, e hydrophytic Vegetation Present? Yes No X Is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X Is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X Is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X Is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X Is the Sampled Area within a Wetland Yes No X Is the Sampled Area within a Wetland? Yes No X Is the Sampled Area within a Wetland? Yes No X Is the Sampled Area within a Wetlan	Soil Map Unit Name: ISU 002010 version of County of County	00+433 Datum: NAII K3
Are Vegetation Soil or Hydrology Will significantly distribed? Are Normal Circumstances' present? Yes No Or Hydrology Will naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site man showing sampling point locations, transects, important features, ethydropytic Vegetation Present? Yes No Yes		A M S A A A A A A A A A A A A A A A A A
Are Vegetation Soil or hydrology Was significantly disturbed? Are Normal Circumstances' present? Yes No Or Hydrology Was naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site man showing sampling point locations, transects, important features, ethydrophytic Vegetation Present? Yes No Yes	Are curriance in hydrologic conditions on the site typical for this time of year? Vic.	
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, ethydrophytic Vegetation Present? Yes No Vegetation Present? Yes	"" V " V S V " IN CANTAL S V I	a (Name) Other transfer of the V
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, ethydropytic Vegetation Present? Yes No Yes N	Are Vegetation, Soil, or Hydrology No naturally problematic?	(If needed, explain any answers in Remarks)
Is the Sampled Area within a Wetland? Yes		
Seminar Stratum Plot size:	SUMMARY OF FINDINGS - Attach site map showing sampling poi	nt locations, transects, important features, a
Wedland Hydrology Present? Yes No X Remarks: WEGETATION - Use scientiffic names of plants. Tree Stratum (Riot size:) Absolute Spaces? Stalus That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (A) Species Areas and Stratum (Plot size: (A) Percent of Dominant Species That Are OBL, FACW, or FAC: (A) (B) Percent of Dominant Species That	Libertine Call December 1	
VEGETATION - Use scientific names of plants. Cover		within a Wetland? Yes No 📈
VEGETATION - Use scientific names of plants. Tree Stratum (Riot size:		
Absolute Dominant Indicator Status Species? Status Species? Status Species? Status Species? Status Species? Status Species? Status Species	Remarks:	
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Number of Dominant Species A A A A A A A A A	VEGETATION - Use scientific names of plants.	
Number of Dominant Species A A A A A A A A A	Absolute Dominant Indicate	Dominance Test worksheet:
That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (A) (B) Sapiling/Shrub Stratum (Plot size: M) = Total Cover Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species	Tree Stratum (Riot size:) % Cover Species? Status	• •
Total Number of Dominant Species Across All Stratus: Species Across All Stratus: Percent of Dominant Species That Are OBL, FACW, or FAC: That Are OBL, FACW, or FA	1.	1 MONDO OF DOMINATE SPECIES 7 1
Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 7 (A/B) septimo(Shrub Stratum (Plot size: 7)	2	
Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total Cover	3.	
That Are OBL, FACW, or FAC: (A/B) Sapling/Shrub Stratum	4.	
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FAC species x3 = FACU species x4 = UPL species x4 = UPL species x5 = Column Totals: SD (A) SSUB) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is <3.0' 4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants' Problematic Hydrophytic Vegetation (Explain) Indicators of hydrocogn must be present, unless disturbed or problematic.		
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species		(AR)
Total % Cover of: Multiply by: OBL species	= Total Cover	
OBL species	paplind/Shrub Stratum (Plot size: ///)	Prevalence index worksheet:
OBL species x1 = FACW species x2 = FAC species x3 = FACU species x4 = UPL		Total % Cover of: Multiply by:
FACW species	·	
FAC species		
### FACU species		
### Stratum (Plot size:		
### Column Totals: SD X5 = Column Totals: SD (A) ZSD Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is <3.0		FACU species x 4 =
Column Totals: 50 (A) 250B	erh Stratum (Plot size:) = 10tal Cover	UPL species $\sqrt{2}$ x 5 = $\sqrt{2}$
Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 · Rapid Test for Hydrophytic Vegetation 2 · Dominance Test is >50% 3 · Prevalence Index is <3.0¹ 4 · Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 · Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Exptain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation **Total Cover** Hydrophytic Vegetation Present? Yes No No No No No No No N		
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2 - Dominance Test is >50% 3 - Prevalence Index is <3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. **Hydrophytic Vegetation Present? Yes No	स्कृति । अस्त्रमात	7 3.00
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Problematic Hydrophytic Vegetation¹ (Explain) - Total Cover - To		data in Remarks or on a separate sheet)
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be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No X		
Bare Ground In Herb Stratum Total Cover Hydrophytic Vegetation Present? Yes No X	pody Vine Stratum (Plot size)	be present unless disturbed or problematic
Bare Ground in Herb Stratum So = Total Cover Hydrophytic Vegetation Present? Yes No X		
Bare Ground In Herb Stratum SD = Total Cover Vegetation Present? Yes No X		£7.4 Tes
Vegetation Present? Yes No	A South of an agency	
Present? Yes NoX	Bara Ground In Horb Stratum S/) = Total Cover	
	Part Order III Lerb Stramili	
marks:		
	narks:	
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SOIL			
Profile Description: (Describe to the de	oth needed to document the indicate Redox Features	or or confirm the al	
Depth Matrix (inches) Color (moist) %	Color (moist) %T	pe¹ Loc²	Texture Remarks
(monos)			sandy loam
0-12 10486/2 100			Color de la Color de
12-18 104R412 100	·		cement sand
			
¹Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, CS=Covered or Co	ated Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
	··· · · · · · · · · · · · · · · · · ·		cators for Problematic Hydric Soils3:
Hydric Soil Indicators: (Applicable to			
Histosof (A1)	Sandy Redox (S5)		2 cm Muck (A10) Red Parent Material (TF2)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (exc		Very Shallow Dark Surface (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		
Thick Dark Surface (A12)	Redox Dark Surface (F6)		Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology must be present, unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		miness distribed of biopietipario
D - 4 - 4 - 4 - 5			. 1
Restrictive Layer (if present):	H	dric Soil Present?	Yes No
Type:			
Depth (inches):		······································	<u> </u>
		m	indécators
Wetland Hydrology Indicators:	d check all that apply)	Seco	ndary Indicators (2 or more required)
	Water-Stained Leaves (B9)	Seco (except V	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2,
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Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B3)	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Roots (C3) Presence of Reduced Iron (Recent Iron Reduction in Til Solls (C6) Stunted or Stressed Plants (LRR A) Other (Explain in Remarks)	g Living C4) GD1)	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) Vary-Season Water Table (C2) Vaturation Visible on Aerial Imagery (C9) Vaturation Position (D2) Vater Position (D2) Vater Table (D3) Value Position (D3) Value Position (D5) Value Position (D6) (LRR A)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (I Field Observations: Surface Water Present? Yes N Saturation Present? Yes N Saturation Present? (includes capillary fringe) Yes N Describe Recorded Data (stream gauge, mo	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Roots (C3) Presence of Reduced Iron (Recent Iron Reduction in Til Solls (C6) Stunted or Stressed Plants (LRR A) Other (Explain in Remarks) Depth (inches): Depth (inches):	Seco (except V 4 4 5 G Living C4) led F (D1) Wetland Hydr spections), if availate	Indary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) Vary-Season Water Table (C2) Vary-Season Water Table (C2) Vateration Visible on Aerial Imagery (C9) Value of Calculus (C9) Value of Calcul

. ^		mountains, valleys, and coast Region
Project/Site: HAVT KANCH	city/county: Siski you C	Sampling Date: 8/23/2011
Applicantiowner: FATT RELICE	State: CA Com-	Store Polists
investigator(s):	Section, Township, Range:	45N REW SOLF 213
Landronn (nilisiope, terrace, etc.);	Ocal relief (concave conv	w reach
Subregion (LNK): INTURN ZZK	- Lat: 1/2つ 州カ33VS Long: サルイ	DISDE Detum
Soil Map Unit Name: 154 Old Hulf	Varian+ Sandurlaulo	WWWI classification:
Are carriage / mydrologic conditions on the site tyl	Dical for this time of year? Yes 😿 No	(If no symbol in Street I a)
Are Vegetation, Soil, or Hydrolo	gy No significantly disturbed? Are	"Normal Circumstances" present? Ves X No.
Are Vegetation, Soil, or Hydrolo	gy NO naturally problematic?	(if needed, explain any answers in Remarks.)
SUMMARY OF ENDINGS 444 4		•
Hydrophytic Vegetation Present? Yes	te map showing sampling poin	t locations, transects, important features, etc
Hydric Soil Present? Yes	No No Is the Sampled Area w	
Wetland Hydrology Present? Yes	No X	ithin a Wetland? Yes NoX
Remarks:		
	dia	hid of
	Oly C	AITCH
VECETATION Has assented	•	
VEGETATION – Use scientific names	of plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
1.	% Cover Species? Status	Number of Dominant Species
,		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
4.		Species Across All Strata: Percent of Dominant Species (B)
		That Are OBL, FACW, or FAC: (A/B)
	7.410	(100)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Prevalence Index worksheet:
1.		
2.		Total % Cover of: Multiply by:
3.		OBL species x1=
4.		FACW species x2 =
5.		FAC species x3 =
	= Total Cover	FACU species x 4 =
terb Stratum (Plot size: 1 m 3	= Total Cover	UPL species 20 x 5 = 100
· Bromus tectorium	70 Y 1101	Column Totals: 20 (A) 100 (B)
	- F	Prevalence Index = B/A =
		Freezentice index = B/A =
		Hydrophytic Vegetation Indicators:
	100 PM 100 PM	Ph. 1
	in a service :	1 - Rapid Test for Hydrophytic Vegetation 2 - Domlnance Test is >50%
		3 - Prevalence Index Is ≤3.0°
		4 - Morphological Adaptations¹ (Provide supporting
		data in Remarks or on a separate sheet)
)		5 - Wetland Non-Vascular Plants
	A 44. 42	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	Indicators of hydric soil and wetland hydrology must
oody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
		1. T. A. B. W. S.
	N 40 7 10 10	The same and the s
Part 2	= Total Cover	Hydrophytic Vegetation
Bare Ground in Herb Stratum	!	Present? Yes No
marks:		

OIL	Samuel and SD
	depth needed to document the Indicator or confirm the absence of Indicators.) Redox Features
Depth Matrix (inches) Color (moist) %	Domostico
<u> </u>	
0-11 104EV/2100	Santag I della
11-18 IDYRWZ IOX	completed Sand
¹ Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: /Applicable	to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :
	0 14.40
Histosol (A1)	- I B - I D
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Other (Explain in Remarks)
Depleted Below Dark Surface (A1)	1) Depleted Matrix (F3)
Thick Dark Surface (A12)	Redox Dark Surface (F6) 3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic
estrictive Layer (if present):	1 2.112 Wa X
Type:	Hydric Soil Present? Yes No
Depth (inches):	<u> </u>
/DROLOGY	
letland Hydrology Indicators:	Consider Indicator (2 or more required)
etland Hydrology Indicators:	sired; check all that apply) Secondary Indicators (2 or more required) Water Stained Leaves (89) (MLRA 1, 2,
etland Hydrology Indicators: imary Indicators (minimum of one requ	Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
etland Hydrology Indicators: imary Indicators (minimum of one requ Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
etland Hydrology Indicators: imary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
etland Hydrology Indicators: imary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
etland Hydrology Indicators: imary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
etland Hydrology Indicators: imary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
etland Hydrology Indicators: imary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
etland Hydrology Indicators: imary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
etland Hydrology Indicators: imary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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data in Remarks or on a separate sheet) 10 5 - Wetland Non-Vascular Plants¹	Soil Map Unit Name: Are climatic / hydrologic conditions on the site ty Are Vegetation , Soil , or Hydrologic Are Vegetation , Soil , or Hydrologic Conditions on the site ty	State: CA Same Section, Township, Range:	Asy, none): Sex, none): Datum: NAN 63 Datum: NAN 63 WAWI classification: (If no, explain in Remarks.) Normal Circumstances" present? Yes X No (If needed, explain any answers in Remarks.) t locations, transects, important features, et
Tree Stratum (Piot size:) Absolute % Cover Species? Status Absolute % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC:	VEGETATION - Use scientific names	of plants.	
Sapling/Shrub Stratum (Plot size:) 1.	<u>Tree Stratum</u> (Plot size:) 1 2	Absolute Dominant Indicator	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide suppor data in Remarks or on a separate sheet) 10. 5 - Wetland Non-Vascular Plants¹	1. 2. 3. 4. 5. Herb Stratum (Plot size: Im2) 1. Distriction (Spicosta) 2.	= Total Cover	Total % Cover of: Multiply by: OBL species
	4	1900 10 10 10 10 10 10 10 10 10 10 10 10 1	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
1. 2. **Bare Ground in Herb Stratum** **Remarks:** **Total Cover** **Hydrophytic Vegetation Present?** No. **No.** **No.** **No.** **Total Cover** **No.** **Total Cover** **No.** **Total Cover** **No.** **Total Cover** **Total Cover** **No.** **Total Cover** % Bare Ground in Herb Stratum	3 6 A . C . C . C . C . C	Hydrophytic Vegetation	

OIL (Pagaribe to the	depth needed to document the indicator or confirm the absence of indicators.)
	Redox Features
Depth Matrix (inches) Color (moist) %	To down
4 4 4 -	
0-12 1048612 1B	
2-18 1048412 10	no porterted loan
-10 -11-11-11	
Type: C=Concentration, D=Depletion,	, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable	to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :
	Sandy Redox (S5) 2 cm Muck (A10)
Histosol (A1)	Sandy Redox (S5) Stripped Matrix (S6) Red Parent Material (TF2)
Histic Epipedon (A2)	Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Other (Explain in Remarks)
Depleted Below Dark Surface (A1	1) Depleted Matrix (F3)
Thick Dark Surface (A12)	Redox Dark Surface (F6) 3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) wetland hydrology must be present.
Sandy Mucky Militeral (S1) Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic
Garley Cicyoo Maanx (0-1)	
strictive Layer (if present):	V
Type:	Hydric Soil Present? Yes No
Depth (inches):	
Deptil (Illories).	1
'DROLOGY	
etland Hydrology Indicators:	uired: check all that apply) Secondary indicators (2 or more required)
rimary indicators (minimum of one requ	31104) 511541 511 51 51 51 51 51 51 51 51 51 51 51 5

O	
Surface Water (A1)	(D40)
Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Drainage Patterns (B10)
High Water Table (A2) Saturation (A3)	Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2)
High Water Table (A2)	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1)	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
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High Water Table (A2) Saturation (A3) Water Marks (B1)	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Saltration Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
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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)	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface ield Observations: urface Water Present? Yes	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Prost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface ield Observations: urface Water Present? Ves	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Vield Observations: Surface Water Present? Vater Table Present? Vater Table Present?	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) No Depth (inches): Wetland Hydrology Present? Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Yes No No No Depth (inches): No
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface ield Observations: Gurface Water Present? Ves Vater Table Present? Ves Saturation Present? Includes capillary fringe) Ves	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (inches): No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface ield Observations: Gurface Water Present? Ves Vater Table Present? Ves Saturation Present? Includes capillary fringe) Ves	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) No Depth (inches): Wetland Hydrology Present? Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Yes No No No Depth (inches): No
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface ield Observations: urface Water Present? Vater Table Present? aturation Present? ncludes capillary fringe) Yes	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (inches): No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface ield Observations: urface Water Present? Yes Vater Table Present? Yes aturation Present? Yes Includes capillary fringe) Scribe Recorded Data (stream gauge, Includes Capillary Fringe)	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (inches): No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface leid Observations: urface Water Present? //ater Table Present?	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (inches): No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface eld Observations: urface Water Present? Yes aturation Present? Yes aturation Present? Yes acturation	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction In Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) No Depth (inches):
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface eld Observations: urface Water Present? Yes aturation Present? Yes aturation Present? Yes acturation	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (inches): No Depth (inches):

	nountains, Valleys, and Coast Region
Project/Site: HAY Ranch City/County: Siskiyou Co	Sampling Date: 8/23/2014
Applicant/Owner: Hart Ranch State: CA Sample	ing Point:
Applicant/Owner: Hart Ranch State: State: Sampli Investigator(s): State: Section, Township, Range: Landform (hillslope, terrace, etc.): +Cincace local ratio (sampling framework)	LEN ZEN SUF 212
Landform (hillslope, terrace, etc.): +CMACC Local relief (concave, conve) Subrecion (LRR): MLRD 222	v none): Comp Carlle Di-
Soil Map Unit Name: 154 00 7616 SORV and Sandy Com. Are climatic / hydrologic conditions on the site typical for this time of years.	Allari place is a second of the second of th
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	(Management)
TO TRUIDIOUY TALL SIDDIFCHING AND AND A	'Normani Cina manda na anti-
Are Vegetation , Soil , or Hydrology NO naturally problematic?	Mormal Circumstances present? Yes No
SUMMARY OF FINDINGS - Attach site map showing sampling point Hydrophytic Vegetation Present? Yes No. X	locations transacte important fortune
Libertale Coll Description	
Wetland Hydrology Present? Yes No No Is the Sampled Area with No	thin a Wetland? Yes No
Remarks:	
Remarks:	
VEGETATION – Use scientific names of plants.	
Tree Stratum (Plot size:) Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:
1	Number of Dominant Species
2.	That Are OBL, FACW, or FAC: (A)
3.	Total Number of Dominant
4	Species Across Ali Strata: (B)
"	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	(AVB)
Sapling/Shrub Stratum (Plot size:)	
· · · · · ·	Prevalence Index worksheet:
2.	Total % Cover of: Multiply by:
2	OBL species x 1 =
	FACW species x 2 =
	FAC species x 3 =
	FACU species x 4 =
lerb Stratum (Plot size: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	UPL species 60 x5=300
Herb Stratum (Piot size: 11)	
· Cerounta Sostitions GO y UPL	Column Totals: 60 (A) 300(B)
	Prevalence index = B/A =
	Hydrophytic Vegetation Indicators:
	1 - Rapid Test for Hydrophytic Vegetation
in a soft in	2 - Dominance Test is >50%
	3 - Prevalence Index is ≤3.0¹
	4 - Morphological Adaptations (Provide supporting
	data in Remarks or on a separate sheet)
).	5 - Wetland Non-Vascular Plants ¹
	Problematic Hydrophytic Vegetation¹ (Explain)
60 = Total Cover	
	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic,
1	
	# white
Table 1	Hydrophytic
Bare Ground in Herb Stretum 40 = Total Cover	Vegetation
Bare Ground in Herb Stretum 40 = Total Cover	riyaropriytic
Bare Ground in Herb Stratum 40 = Total Cover	Vegetation
Bare Ground in Herb Stratum 40 = Total Cover	Vegetation

SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth Remarks Loc2 Texture Color (moist) % Type Golor (moist) (inches) ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) 2 cm Muck (A10) Sandy Redox (S5) Histosol (A1) Red Parent Material (TF2) Stripped Matrix (S6) Histic Epipedon (A2) Very Shallow Dark Surface (TF12) Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) Other (Explain in Remarks) Loamy Gleyed Matrix (F2) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F3) ³Indicators of hydrophytic vegetation and Redox Dark Surface (F6) Thick Dark Surface (A12) wetland hydrology must be present, Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) unless disturbed or problematic Redox Depressions (F8) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Hydric Soil Present? Depth (inches): Remarks: no indicators **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (minimum of one required; check all that apply) Water-Stained Leaves (B9) (MLRA 1, 2, Water-Stained Leaves (B9) (except 4A, and 4B) MLRA 1, 2, 4A, and 4B) Surface Water (A1) Drainage Patterns (B10) Salt Crust (B11) High Water Table (A2) Dry-Season Water Table (C2) Aquatic Invertebrates (B13) Saturation (A3) Saturation Visible on Aerial Imagery (C9) Hydrogen Sulfide Odor (C1) Water Marks (B1) Oxidized Rhizospheres along Living Geomorphic Position (D2) Sediment Deposits (B2) Roots (C3) Shallow Aquitard (D3) Presence of Reduced Iron (C4) Drift Deposits (B3) Recent Iron Reduction in Tilled FAC-Neutral Test (D5) Soils (C6) Algal Mat or Crust (B4) Stunted or Stressed Plants (D1) Raised Ant Mounds (D6) (LRR A) (LRR A) Iron Deposits (B5) Frost-Heave Hummocks (D7) Other (Explain in Remarks) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Depth (inches): No Surface Water Present? Wetland Hydrology Present? Depth (inches): Yes No Water Table Present? Saturation Present? Depth (inches): Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: margination irregated

Remarks:

		Mountains, Valleys, and Coast Region
Project/Site: Hart Kanch	city/county: Siski Vou Ca	9. * Sampling Pate: 8/23/2016
Applicant/Owner: Hart Ranch	State CA Samo	olina Baint: 33
Investigator(s): Andrea Kane	Section Township Range:	Sampling Date: 0/23/2010 Sing Point: 33 45 N R 5 W Sect 1, 2 + 3
Subregion (LRR): MLRA 22R	Lat: =/22 36 2025	701779 Datum: NAN 83
Soil Map Unit Name: 152	TOLK STANDED LONG:	70177 Datum: NA) (3
Are climatic / hydrologic conditions on the site has	inal for this time of a N	NWI classification:
Are climatic / hydrologic conditions on the site typ	No	(If no, explain in Remarks.)
Are Vegetation Soil or Hydrolog	significantly disturbed? Are	"Normal Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrolog	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	e man showing compline noin	t locations, transects, important features, et
Hydrophytic Vegetation Present? Yes	No Showing sampling point	t locations, transects, important features, et
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No sthe Sampled Area w	ithin a Wetland? Yes No
welland Hydrology Present? Yes	No So	
Remarks:		<u></u>
VEGETATION – Use scientific names	of plants.	
Francisco (P) (Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
-		That Are OBL, FACW, or FAC:(A)
		Total Number of Dominant
		Species Across All Strata: (B)
		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
apling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species x1=
		FACW species x2 =
	= Total Cover	FACU species x 4 =
arb Stratum (Plot size: 170)		UPL species x 5 =
alkali blue a cass		Column Totals: (A) (B)
basin unild the		Prevalence index = B/A =
alkal sacaton		Liensieuce (udex = R/V =
		Hydrophytic Vegetation Indicators:
	A SECTION OF THE PROPERTY OF T	
		1 - Rapid Test for Hydrophytic Vegetation
	Action of the	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3,01
	14 - 2 4 - 15 - 15 - 15 - 15 - 15 - 15 - 15 -	4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
	1. 2.4.	5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation¹ (Explain)
ody Vine Stratum (Plot size;	= Total Cover	Indicators of hydric soil and wetland hydrology must
A A A A A A A A A A A A A A A A A A A	1	be present, unless disturbed or problematic.
	and the state of	to the second of the second
		the state of the s
	The state of the second	
	= Total Cover	nydropnytic
Bare Ground in Herb Stratum		Vegetation
		Vegetation
		Vegetation
Bare Ground in Herb Stratum		Vegetation

SOIL			<u>अंतर्ग वित्यान वित्यान वि</u>	<u> </u>
Profile Description: (Describe to the dept	th needed to document the inc	licator or confirm t	the absence of indicators.)	
Depth Matrix (inches) Color (moist) %	Redox Fea Color (moist) %	Type Lo	Texture	Remarks
			18am	
0-6 TOYPYR 100			- // // // // // // // // // // // // //	
6-12 1048712 100			<u> Clay laam</u>	
12-48 104881 100			Claylean_	
				
				·
¹ Type: C=Concentration, D≂Depletion, RM=	=Reduced Matrix, CS=Covered	or Coated Sand Gra	ins. ² Location: PL=Pore Linin	g, M=Matrix.
Hydric Soil Indicators: (Applicable to all			Indicators for Problematic Hy	rdric Soils³:
		u.,	2 cm Muck (A10)	•
Histosol (A1)	Sandy Redox (S5) Stripped Matrix (S6)	#	Red Parent Material (TF2)	
Histic Epipedon (A2) Black Histic (A3)	Loamy Mucky Mineral (F1)	(except MLRA 1)	Very Shallow Dark Surface	(TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)	1
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		The second secon	
Thick Dark Surface (A12)	Redox Dark Surface (F6)		³ Indicators of hydrophytic v wetland hydrology must be	egetation and present
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) Redox Depressions (F8)	1	unless disturbed or problen	natic
Sandy Gleyed Matrix (S4)	Redox Depressions (1 0)	T		·····
Restrictive Layer (if present):				
Type:		Hydric Soll Pres	ent? Yes No	
Depth (inches):				
Remarks:				
Tallotto.				
				· · · · · · · · · · · · · · · · · · ·
HYDROLOGY				
Wetland Hydrology Indicators:	check all that apply)		Secondary Indicators (2 or more	required)
Primary Indicators (minimum of one required;	check all that apply) Water-Stained Leaves (Secondary Indicators (2 or more Water-Stained Leaves (B9) (required) MLRA 1, 2,
Primary Indicators (minimum of one required;	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B	B9) (except	Water-Stained Leaves (B9) (4A, and 4B)	required) MLRA 1, 2,
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11)	B9) (except	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10)	MLRA 1, 2,
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B	B9) (except)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2	MILRA 1, 2,
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor	B9) (except)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10)	MILRA 1, 2,
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres	B9) (except)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2	MILRA 1, 2,
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)	B9) (except) 313) (C1) along Living	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II	MILRA 1, 2,
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres	B9) (except) 313) (C1) along Living ron (C4)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3)	MILRA 1, 2,
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6)	B9) (except) 313) (C1) along Living ron (C4) in Tilled	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2)	MILRA 1, 2,
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced II Recent Iron Reduction Soils (C6) Stunted or Stressed Pla	B9) (except) 313) (C1) along Living ron (C4) in Tilled	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	MLRA 1, 2,
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla	B9) (except i) 313) (C1) along Living ron (C4) in Tilled ants (D1)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF	MLRA 1, 2, 2) magery (C9)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced II Recent Iron Reduction Soils (C6) Stunted or Stressed Pla	B9) (except i) 313) (C1) along Living ron (C4) in Tilled ants (D1)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	MLRA 1, 2, 2) magery (C9)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except i) 313) (C1) along Living ron (C4) in Tilled ants (D1)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF	MLRA 1, 2, 2) magery (C9)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except i) 313) (C1) along Living ron (C4) in Tilled ants (D1)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF	MLRA 1, 2, 2) magery (C9)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except i) 313) (C1) along Living ron (C4) in Tilled ants (D1)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF	MLRA 1, 2, 2) magery (C9)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except) 313) (C1) along Living ron (C4) in Tilled ants (D1)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF Frost-Heave Hummocks (D7)	MLRA 1, 2, 2) magery (C9) RR A)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except) 313) (C1) along Living ron (C4) in Tilled ants (D1)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF	MLRA 1, 2, 2) magery (C9)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remain) Depth (Inches): Depth (Inches):	B9) (except) 313) (C1) along Living ron (C4) in Tilled ants (D1)	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF Frost-Heave Hummocks (D7)	MLRA 1, 2, 2) magery (C9) RR A)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe)	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except) 313) (C1) along Living ron (C4) in Tilled ants (D1) arks) Wetland	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF) Frost-Heave Hummocks (D7) Hydrology Present? Yes	MLRA 1, 2, 2) magery (C9) RR A)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except) 313) (C1) along Living ron (C4) in Tilled ants (D1) arks) Wetland	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF) Frost-Heave Hummocks (D7) Hydrology Present? Yes	MLRA 1, 2, 2) magery (C9) RR A)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No Describe Recorded Data (stream gauge, monit	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remain) Depth (Inches): Depth (inches): Loring well, aerial photos, previous	B9) (except) 313) (C1) along Living ron (C4) in Tilled ants (D1) wks) Wetland us inspections), if a	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF Frost-Heave Hummocks (D7) Hydrology Present? Yes vailable:	MLRA 1, 2, 2) magery (C9) RR A)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No Describe Recorded Data (stream gauge, monit	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remain) Depth (Inches): Depth (inches): Loring well, aerial photos, previous	B9) (except) 313) (C1) along Living ron (C4) in Tilled ants (D1) wks) Wetland us inspections), if a	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF Frost-Heave Hummocks (D7) Hydrology Present? Yes vailable:	MLRA 1, 2, 2) magery (C9) RR A)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No Describe Recorded Data (stream gauge, monit	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remain) Depth (Inches): Depth (inches): Loring well, aerial photos, previous	B9) (except) 313) (C1) along Living ron (C4) in Tilled ants (D1) wks) Wetland us inspections), if a	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF Frost-Heave Hummocks (D7) Hydrology Present? Yes vailable:	MLRA 1, 2, 2) magery (C9) RR A)
Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No Describe Recorded Data (stream gauge, monit	Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except) 313) (C1) along Living ron (C4) in Tilled ants (D1) wks) Wetland us inspections), if a	Water-Stained Leaves (B9) (4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial II Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LF Frost-Heave Hummocks (D7) Hydrology Present? Yes vailable:	MLRA 1, 2, 2) magery (C9) RR A)

Project/Site: HATRACA Applicant/Owner: Hart Ranch Investigator(s): Anuka Kabe Landform (hillslope, terrace, etc.): 10110 Subregion (LRR): MLRA 22B Soil Map Unit Name: 153 0076 Are climatic / hydrologic conditions on the site typi Are Vegetation , Soil , or Hydrolog Are Vegetation , Soil , or Hydrolog SUMMARY OF FINDINGS - Attach site Hydrophytic Vegetation Present? Yes	State: CA Samp Section, Township, Range: Local relief (concave, converted: Lat: 123 State Long: 4/69 Long: 4/	ing Point: 46 N
VEGETATION – Use scientific names of	of plante	
Tree Stratum (Plot size:) 1.	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2. 3. 4.		Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot shae:) 1.	= Total Cover	Prevalence Index worksheet:
2. 3. 4.		OBL species
Herb Stratum (Plot size: 102) 1. Poo unici forta	= Total Cover	FACU species
2. Sporo bolus alroides	ao y FAC	Prevalence Index = B/A =
4	AND THE SERVICE AND THE SERVIC	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
9. 10. 11.	(12)	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:)	(L) = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
Remarks:		

)IL							56000	ling Polici	ر ب	
rofile Descri	ption: (Describe	to the depth	needed to docum	nent the in	dicator or co	nfirm the	absence of inc	licators.)		
Depth _	<u>Matrix</u>		Color (moist)	Redox Fea	tures Type	Loc²	Textu		Rema	rks
(inches)	Color (moist)	%	Color (moist)		_ i ype					
) - 1	048415	100					lam			
}	1048-3/2	100						cam.		
1-18 1	DYKAL	100					CLOK	Jam	٨	
ı		*			_					
						-				
										
										-
							2)			Antriv
Type: C=Con	centration, D=Der	oletion, RM=F	Reduced Matrix, CS	S=Covered	or Coated Sa					
Hydric Soil Ir	ndicators: (Appli	cable to all I	RRs, unless othe	rwise note	ed.)	In	dicators for P	oblematic	Hydric S	oils':
Histosol (A1)	_	_ Sandy Redox (S				2 cm Muck (A		·0\	
	pedon (A2)	_	 Stripped Matrix (Loamy Mucky M 	(\$6) liperal (£1)	/ovcent MI E	PA 1\	Red Parent N Very Shallow	lateriai (TF: Dark Surfa	2) ice (TF12))
Black Hist	tic (A3) Sulfide (A4)	_	Loamy Gleyed N		(except mr.	w ''	Other (Explai	n in Remar	ks)	
	Below Dark Surfa	ce (A11)	Depleted Matrix	(F3)						
	k Surface (A12)	_	Redox Dark Sur				³ Indicators of wetland hydro	hydrophyti Joan must	c vegetatii	on and
	ucky Mineral (S1) eyed Matrix (S4)	-	Depleted Dark S Redox Depressi)		unless disturt	ed or prob	lematic	
- Sandy Gi	Sycu Main (O-)			(/	T -					
strictive Lay	er (if present):						- 4		X	
Туре:					Hydric Sc	il Present	? Yes		No <u>/</u>	
Depth (inche	s):									
narks:							é			
				MM	indi	10%	65			
				110	1,500		4 - 44			
	_									
DROLOGY	logy Indicators:						····			
imary Indicato	rs (minimum of or	ne required; o	heck all that apply)				ondary Indicate	rs (2 or mo	re require	<u>d)</u>
			Water-Stain	ed Leaves			Water-Stained 4A, and 4B)	Leaves (B	9) (MLRA	1, 2,
Surface Water			MLRA 1, 2, Salt Crust (E		5)		orainage Patte	rns (B10)		
High Water T Saturation (A			Aquatic Inve		B13)		Dry-Season W	ater Table	(C2)	
Water Marks	(B1)		Hydrogen S	ulfide Odor	(C1)		Saturation Visi	ole on Aeria	al Imagery	(C9)
	(DO)			izospheres	along Living		Geomorphic P	sition (D2)	1	
Sediment De Drift Deposits			Roots (C3) Presence of	Reduced I	ron (C4)		Shallow Aquita		,	
Drint Deposit	, (50)		Recent Iron							
Algal Mat or	Crust (B4)		Soils (C6) Stunted or S	Stronger of Fit	ante /D41	_	FAC-Neutral T	est (U5)		
Iron Deposits	e (B5)		Stunted or S (LRR A)	stressed Pi	ants (DT)		Raised Ant Mo	unds (D6)	(LRR A)	
Surface Soil			Other (Expla	ain in Rema	arks)		Frost-Heave H			
inundation V	isible on Aerial Im									
Sparsely Ve	getated Concave	Surface (B8)								
eld Observat	ions:		2		<u></u>					i
urface Water F		_ No	Depth (inches)):					_	. V
ater Table Pre	esent? Yes		Depth (inches		W	etland Hyd	Irology Preser	it? Yes	· — '	lo 🏃
aturation Pres		No	Depth (inches	٠.						
	ry fringe) Yes				us inspection	ns), if avail	able:			
ncludes capilla	M Dara (aragiii 8	euge, intilitu				.,,	_			
scribe Record										
scribe Recorde			<i>201</i>	10.						
scribe Recorde			·	tecl						
scribe Recorde			riga	tell					<u> </u>	
ncludes capilla scribe Recorde marks;			duriga	tell					<u></u>	

Investigator(s):	State: CA Samp Section, Township, Range: Local relief (concave, converted) Lat: Local relief (concave, converted) Local relief (concave, c	ing Point: 45 N Sect 1, 2 + 3 x, none): Corrected Slope (%): 98467 Datum: NAN 83 NWI classification: (If no, explain in Remarks.) "Normal Circumstances" present? Yes X No (If needed, explain any answers in Remarks.) t locations, transects, important features, etc.
VEGETATION - Use scientific names	of plants.	
Tree Stratum (Plot size:	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet; Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A) (B)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Prevalence Index worksheet:
		Total % Cover of: Multiply by:
3.		OBL species x1 =
4.		FACW species x 2 =
5.		FAC species SO x3 = 150
	= Total Cover	FACU species x 4 =
derb Stratum (Plot size: 100)		UPL species 30 x5 = 150
Poa pratensis	50 Y FAC	Column Totals: 80 (A) 300 (B)
Pseudoriamia spirata Poa junifolia	as y up	Prevalence Index = B/A =
- FOR PURPLEDING	10 y UPL	fluidamh, dia Manadata - India
	+ x (1) (1) x 1 + x 2 (1)	Hydrophytic Vegetation Indicators:
	Na trium Rició	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
		3 - Prevalence Index is <3.01
·		4 - Morphological Adaptations (Provide supporting
·		data in Remarks or on a separate sheet)
0. 1.		5 - Wetland Non-Vascular Plants ¹
· · · · · · · · · · · · · · · · · · ·	= Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
/oody Vine Stratum (Plot size:)	- Iotal Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Hadron hade
Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
emarks:		

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)
Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type Loc Texture Remarks
(Indices) Votes (Indices)
0-6 1048412100 10am
6-18 104E42 100 Cerriented Sand
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10)
Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2)
Black Histic (A3) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Dark Surface (F6) Redox Dark Surface (F6) Planticators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic
Restrictive Layer (if present): Hydric Soil Present? Yes No
Type:
Depth (inches):
emarks:
emarks:
YDROLOGY
YDROLOGY Vetland Hydrology Indicators:
YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)
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Subregion (LRR): MC-RA 2 B Latt 12 3 3 3 3 3 1	WE LEAD DE LEKMIN	ATION DATA FORM - Western	flountains, Valleys, and Coast Region
Sacilon, Cownelly, Range:	Project/Site: Hart Ranch	city/county: Siskiyou Co	2. Sampling Date: 8/23/2016
Sacilon, Cownelly, Range:	Application writer. Fell 17 Editor IX	States (A Comm	
Subregion (RR): MLR ZB Lat 123 21 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	HIVESTIGATIONS! THE LATE ID TO THE FIRST	Section Toumobin Dance.	
Soil Map Unit Name: 154 Q 2410 Var Qur't 1 And 1000 (castification: 1540 Are climate) hydrologic conditions of the site typical for the time of year? Yes X fit (if no, explain in Remarks.) Are Vegetation Soil or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation Soil or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation Present? Yes X No Instrustly problemate? Are "Normal Circumstances" present? Yes X No Instrustly problemate? Are "Normal Circumstances" present? Yes X No Instrustly problemate? Are "Normal Circumstances" present? Yes X No Instrustly problemate? Are "Normal Circumstances" present? Yes X No Instrustly problemate? Are within a Westland? Yes X No X Instrustly problemate? Yes X No X Instrustly problemate index Yes X No X Instrustly problemate. Yes X No X Instrustly problemate index Yes X No X Instruction Yes X N	Landio in this iope, terrate, etc., The service of the	7 - 1 000 rolles (nonceus con-	
Are climatic / hydrologic conditions of the site hybral for this time of year? Yes			
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Summary OF FINDINGS — Attach site map showing sampling point locations, transects, important features, e Hydrophytic Vegetation Present? Yes No Wetland Hydrophytic Vegetation Present? Yes No No Wetland Hydrophytic Vegetation (Provide supporting data in Remarks or on a separate sheet) In the Stratum (Plot size: No	the survey of the state of the state of the state of	NICOLOUGUS TIME OF VERY YES TO BE	(If no explain in Demonstruct
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, e Phydropytic Vegetation Present? Yes No Wetland Hydrology Resent? Yes No Wetland? Yes No Wetland Hydrology Resent? Yes No Wetland? Yes No Wetland Yes No Y	Are Vegetation Soil or Hydrole	significantly disturbed? Are	"Normal Circumstances" present? Yes No
Sapiling/Shrub Stratum Plat size:			
Hydrocology Present? Yes No No No No No No No N	Hydrophytic Vegetation Present? Yes	No No	t locations, transects, important features, et
VEGETATION - Use scientific names of plants. Tree Stratum	Hydric Soil Present? Yes	No Is the Sampled Area w	ithin a Wetland? Yes No
Absolute % Cover Species? Sielus Absolute % Cover Species? Indicator Status Indica	Remarks:		
Absolute % Cover Species? Sielus Absolute % Cover Species? Indicator Status Indica	1		
Absolute % Cover Species? Sielus Absolute % Cover Species? Indicator Status Indica			
Absolute % Cover Species? Sielus Absolute % Cover Species? Indicator Status Indica	VECETATION AND AND		
Number of Dominant Species (A) Total Are OBL, FACW, or FAC:	VEGETATION - Use scientific names	of plants.	
Number of Dominant Species That Are OBL, FACW, or FAC: (A)	Tree Stratum (Diet sine)		Dominance Test worksheet;
Total Number of Dominant Species Across All Stratus (B) Sapling/Shrub Stratum (Plet size:)		% Cover Species? Status	Number of Dominant Species
3. Species Across All Stratus (B) 4. Percent of Dominant Species (AVB) Sapling/Shrub Stratum (Plet size:) Total Cover Prevalence Index worksheet: Total % Cover of: Muttiply by:			
Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Sapling/Shrub Stratum (Plot size: 1.			
That Are OBL, FACW, or FAC:	4		
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species			
Prevalence Index worksheet: Total % Cover of: Multiply by:		- Table	
Total % Cover of: Multiply by: 2.	Sapling/Shrub Stratum (Plat size)		Prayalance Index workshoot.
### Stratum (Plot size: MZ) 1. Poa which Folia 30 y UPU 2. But this a repense (00 y NT Prevalence Index = B/A = 150 (B) 4. Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ 1 - Problematic Hydrophytic Vegetation¹ (Explain) 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 4 - Morphytic vegetation Present; unless disturbed or problematic.	1.		1
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### Stratum (Plot size: MZ) Poa war folia Prevalence Prevalence	5.		
Herb Stratum (Plot size: MC) 1. Poa which to a recens (a) 2. But the a recens (b) 3. Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation 2. Dominance Test is >50% 3. Prevalence Index is ≤3.0¹ 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5. Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 1. Problematic Hydrophytic Vegetation¹ (Explain) 1. Problematic Hydrophytic vegetation¹ (Explain) 1. Hydrophytic vegetation¹ (Explain) 1. Hydrophytic vegetation Present, unless disturbed or problematic.	\ -	= Total Cover	
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Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) **Total Cover** Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No No No No No No No N	1. Poa uncitolia	30 Y UPL	Column Totals: 30 (A) 150 (B)
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) **Total Cover** Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No No No No No No No N	2. Euthhaia repens	100 V NI	Prevalence Index = R/A =
1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 1 - Rapid Test for Hydrophytic vegetations 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic vegetation separate sheet) 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)	3		Trovalerice fillidex - BIA -
1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) **Voody Vine Stratum** (Plot size: Problematic Hydrophytic vegetation¹ (Explain)			Hydrophytic Vegetation Indicators:
2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 1 - Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No			en.
3 - Prevalence Index is <3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 20 = Total Cover 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No	5		•
4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No	7		
data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation¹ (Explain) 1.)		4 - Morphological Adaptations (Provide supporting
Problematic Hydrophytic Vegetation¹ (Explain) - Total Cover - To			data in Remarks or on a separate sheet)
Poody Vine Stratum (Plot size:) = Total Cover			
be present, unless disturbed or problematic, ### Hydrophytic Vegetation Present? Yes	1		Problematic Hydrophytic Vegetation ¹ (Explain)
Bare Ground in Herb Stratum = Total Cover Hydrophytic Vegetation Present? Yes No	Manda Managara and American American	10 = Total Cover	¹ Indicators of hydric soil and wetland hydrology must
Bare Ground in Herb Stratum = Total Cover Hydrophytic Vegetation Present? Yes No		-	be present, unless disturbed or problematic.
Bare Ground in Herb Stratum	-		3
Bare Ground in Herb Stratum = Total Cover Vegetation Present? Yes No		A Court State Garage	1 261 1 11 11
Present? Yes No	(Ports Consumed to 1 level on	= Total Cover	riyulopriyuc
emarks:	o pare Ground in Herb Stratum		_ = v
emarks:			
	emarks:		

	e depth needed to document the	indicator or confirm	รอัสอูโกร รูปกัก n the absence of indicators.)	
Depth Matrix	Redox F	eatures		,
Depai	% Color (moist) %		oc ² Texture	Remarks
(11101100)			sandy/	win
0-11 10XBR13 10				and O will
11-18 10484/210	0		<u> </u>	ed Sanh
	_			
	·		·	
		- 6		
 -			<u></u>	
		-	4	
¹Type: C=Concentration, D=Depletion	RM=Reduced Matrix, CS=Covere		Grains. ² Location: PL=Pore	Lining, M=Matrix.
			Indicators for Problemati	e Hydric Spile ³ :
Hydric Soil Indicators: (Applicable	to all LRRs, unless otherwise no	oted.)		c nyuric solis .
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (T	F2)
Black Histic (A3)	Loamy Mucky Mineral (F	1) (except MLRA 1)	Very Shallow Dark Sur	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2	2)	Other (Explain in Rema	arks)
Depleted Below Dark Surface (A	11) Depleted Matrix (F3)			
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophy	tic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (I		wetland hydrology mus	st be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or pro	blematic
				N /
Restrictive Layer (if present):				X
Туре:	4	Hydric Soil Pr	esent? Yes	No
Depth (Inches):				
emarks:				
YDROLOGY		licators		
Wetland Hydrology Indicators:				
Primary Indicators (minimum of one req	utends about all that apply)			
	niteo: check all inat abbit)		Secondary Indicators (2 or n	nore required)
	Water-Stained Leave	es (B9) (except	Secondary Indicators (2 or n Water-Stained Leaves (i	nore required) B9) (MLRA 1, 2,
	Water-Stained Leave		Water-Stained Leaves (f	B9) (MLRA 1, 2,
Surface Water (A1)	Water-Stained Leave MLRA 1, 2, 4A, and		Water-Stained Leaves (i 4A, and 4B) Drainage Patterns (B10)	B9) (MLRA 1, 2,
Surface Water (A1) High Water Table (A2)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates	4B) s (B13)	Water-Stained Leaves (6 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table	B9) (MLRA 1, 2,) e (C2)
Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc	4B) s (B13) dor (C1)	Water-Stained Leaves (i 4A, and 4B) Drainage Patterns (B10)	B9) (MLRA 1, 2,) e (C2)
Surface Water (A1) High Water Table (A2)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc	4B) s (B13) dor (C1)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae	89) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates	4B) s (B13) dor (C1)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D	89) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce	s (B13) dor (C1) res along Living d Iron (C4)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae	89) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3)	s (B13) dor (C1) res along Living d Iron (C4)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3)	89) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6)	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D	89) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5)	89) (MLRA 1, 2, e (C2) rial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A)	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5)	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations:	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) 2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1) emarks)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	B9) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) e (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Water Table Present?	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1) emarks)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) e (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Saturation Present?	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re (B7) Depth (inches): Depth (inches):	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1) emarks)	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	B9) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) e (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (Includes capillary fringe)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrate: Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re (B7) Depth (inches): No Depth (inches):	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1) emarks) Wetlan	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6 Frost-Heave Hummocks	B9) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) e (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Saturation Present?	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrate: Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re (B7) Depth (inches): No Depth (inches):	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1) emarks) Wetlan	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6 Frost-Heave Hummocks	B9) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) e (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrate: Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re (B7) Depth (inches): No Depth (inches):	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1) emarks) Wetlan	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6 Frost-Heave Hummocks	B9) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) e (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	Water-Stained Leave MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrate: Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Stunted or Stressed (LRR A) Other (Explain in Re (B7) Depth (inches): No Depth (inches):	s (B13) dor (C1) res along Living d Iron (C4) on in Tilled Plants (D1) emarks) Wetlan	Water-Stained Leaves (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6 Frost-Heave Hummocks	B9) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) e (D7)
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Applicant/Owner: Hart Kanch Investigator(s): Muke Kanch Landform (hillslope, terrace, etc.): Levy Subregion (LRR): Muke ZZB Soil Map Unit Name: LSY Are climatic / hydrologic conditions on the site tyle Are Vegetation Soil or Hydrologic Are Vegetation Soil or Hydrologic Conditions on the site tyle Are Vegetation Soil or Hydrologic Conditions on the site tyle Are Vegetation Soil or Hydrologic Conditions on the site tyle Are Vegetation Soil or Hydrologic Conditions on the site tyle Are Vegetation Soil or Hydrologic Conditions on the site tyle Are Vegetation Soil or Hydrologic Conditions on the site tyle Are Vegetation Soil or Hydrologic Conditions on the site tyle Are Vegetation Soil Or Hydrologic Conditions on the site tyle Are Vegetation Soil Or Hydrologic Conditions on the site tyle Are Vegetation Soil Or Hydrologic Conditions Or Hydrologic Condition	City/County: State: CA Sample Section, Township, Range: CC Local relief (concave, convertat: 122 38 32 Long: 4 Local for this time of year? Yes X No gy No significantly disturbed? Are gy No naturally problematic?	ng Point: 45 N K 5 W Sect 1, 2 + 3 c, none): Concord Slope (%): Z Will classification: PEMA (If no, explain in Remarks.) Normal Circumstances" present? Yes X (If needed, explain any answers in Remarks.) locations, transects, important features, etc.
TO THE TOTAL CONTROL OF THE TO		
VEGETATION - Use scientific names	of plants.	
Tree Stratum (Plot size:) 1 2 3 4	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:) 1 2 3 4 5 Herb Stratum (Plot size: \m^2)	= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species
Poa uncifolic Poa Gratensis	70 Y FAC. 20 Y UPL	Column Totals: 10 (A) 160 (B) Prevalence Index = B/A = 4.0
3. Eliptrigita replace 4. 5. 5. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	Sb y NE	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)
Voody Vine Stratum (Plot size:)	90 = Total Cover	¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		\$20 × 网络
6 Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
demarks;		

SOIL	Stating lines Polinit 5
Profile Description: (Describe to the depth needed to documen	t the indicator or confirm the absence of indicators.)
	dox Features White Type Loc Texture Remarks
(inches) Color (moist) % Color (moist)	7,700
0-13 10486/2/00	
	10 mented cand
¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=C	overed or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwi	se noted.) Indicators for Problematic Hydric Soils ³ :
	•
Histosol (A1) Sandy Redox (S5)	2 cm Muck (A10) Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6 Loamy Mucky Mine	ral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4) Loamy Gleyed Matr	
Depleted Below Dark Surface (A11) Depleted Matrix (F3	
Thick Dark Surface (A12) Redox Dark Surface	
Sandy Mucky Mineral (S1) Depleted Dark Surfa	ace (F7) wetland hydrology must be present,
Sandy Gleyed Matrix (S4) Redox Depressions	(F8) unless disturbed or problematic
Restrictive Layer (if present):	W V
Type:	Hydric Soil Present? Yes No
Depth (inches):	
Remarks:	
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	Dindicators
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HYDROLOGY	DINGICATOS
HYDROLOGY Wetland Hydrology Indicators:	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required) eaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L Surface Water (A1) High Water Table (A2) MLRA 1, 2, 4A, Salt Crust (B11)	Secondary Indicators (2 or more required) Leaves (B9) (except and 4B) Drainage Patterns (B10)
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HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L MLRA 1, 2, 4A, High Water Table (A2) Salt Crust (B11) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soll Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Ves No Depth (Inches): Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos,	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Plants (D1) Remarks) Wetland Hydrology Present? Yes NoX
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stained L MLRA 1, 2, 4A, High Water Table (A2) Salt Crust (B11) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soll Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Ves No Depth (Inches): Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos,	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Plants (D1) Remarks) Wetland Hydrology Present? Yes NoX

FID100

WEILAND DETERMIN	VATION DATA FORM – Western	Mountains, Valleys, and Coast Region
Project/Site: HAP KANCA Applicant/Owner: HAP RANCA Investigator(s): MAKA KADE Landform (hillslope, terrace, etc.): Level Subregion (LRR): MLRA 22B Soil Map Unit Name: 189 mcd Are climatic / hydrologic conditions on the site Are Vegetation Soil or Hydrologic Are Vegetation Soil or Hydrologic Conditions on the site Are Vegetation Soil or Hydrologic Conditions on the site Are Vegetation Soil or Hydrologic Conditions on the site Are Vegetation Soil or Hydrologic Conditions on the site Are Vegetation Soil or Hydrologic Conditions on the site Are Vegetation Soil or Hydrologic Conditions on the site Are Vegetation Soil or Hydrologic Conditions on the site Are Vegetation Soil or Hydrologic Conditions on the site Are Vegetation Soil or Hydrologic Conditions on the site Are Vegetation Soil or Hydrologic Conditions Or Hy	Section, Township, Range: Section, Township, Range: Local relief (concave, converted: Lat: 122 381912 Long: typical for this time of year? Yes X No logy No significantly disturbed? Are blogy No naturally problematic?	Sampling Date: 8/23/2010 Diing Point: 38a **KSN.KSW SECT., 2+3 ex, none): CONCOME Slope (%): 2 EXAMPLE STATE S
VEGETATION - Use scientific names		
Tree Stratum (Plot size:) 1. 2 3 4	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A) (B)
Sapling/Shrub Stratum (Plot size:) 1. 2. 3. 4. 5. Herb Stratum (Plot size: M2) 1. Poa un cifolia 2. Elymus elympials 3.	= Total Cover = Total Cover UPL DD Y FACU	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FAC species x3 = FACU species YO x4 = [60] UPL species YO x5 = 200 Column Totals: SO (A) 360 (B) Prevalence index = B/A =
4.	- Middle of	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
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Profile Description: (Describe to the depth needed to docum	ent the indicator or confin	m the absence of indicators.)	1
Depth Matrix	Redox realules		
(inches) Color (moist) % Color (moist)	% Type	Loc ² Texture Remarks	<u> </u>
		Claulann	1
0-18 10423/2 100		- luyioure	
		·	1
05_ ==-5			
		0	
			
	Control Cond	Grains. ² Location: PL=Pore Lining, M=Ma	trix.
¹Type: C=Concentration, D=Depletion, RM≃Reduced Matrix, CS	=Covered or Coated Sand (
Hydric Soil Indicators: (Applicable to all LRRs, unless othe	nvise noted.)	Indicators for Problematic Hydric Soil	s³:
-		2 cm Muck (A10)	
Histosof (A1) Sandy Redox (S	5)	Red Parent Material (TF2)	
Histic Epipedon (A2) Stripped Matrix (50)		
Black Histic (A3) Loamy Mucky M	ineral (F1) (except MLRA 1	Other (Explain in Remarks)	
Hydrogen Sulfide (A4) Loamy Gleyed N		Onle (myhain in Leniario)	
Depleted Below Dark Surface (A11) Depleted Matrix	(r3)	³ Indicators of hydrophytic vegetation	and
Thick Dark Surface (A12) Redox Dark Surf	IRCE (FU)	wetland hydrology must be present,	_,
Sandy Mucky Mineral (S1) Depleted Dark S		unless disturbed or problematic	
Sandy Gleyed Matrix (S4) Redox Depressi	ons (F8)	unless distalbed of problematio	
			_
Restrictive Layer (if present):		resent? Yes No	_
Type:	Hydric Soil P	resent? Yes No	
Depth (inches):		·	
Remarks:			
	noindica		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (2 or more required))
Wetland Hydrology Indicators: Primary Indicators (minimum of one required: check all that apply)	ad Lower (20) (except	Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1,)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain	eg Feanez (Ra) (excebr	Water-Stained Leaves (B9) (MLRA 1,	2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain Surface Water (A1) MLRA 1, 2,	ed Leaves (B9) (except 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)	2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain Surface Water (A1) High Water Table (A2) Salt Crust (E	ed Leaves (B9) (except 4A, and 4B) 311)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10)	2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain MLRA 1, 2, High Water Table (A2) Salt Crust (B Saturation (A3) Aquatic Inve	ed Leaves (B9) (except 4A, and 4B) B11) Britebrates (B13)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)	2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain MLRA 1, 2, High Water Table (A2) Salt Crust (B) Saturation (A3) Water Marks (B1) Water Marks (B1)	ed Leaves (B9) (except 4A, and 4B) B11) ortebrates (B13) ulfide Odor (C1)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10)	2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain MLRA 1, 2, High Water Table (A2) Salt Crust (I Saturation (A3) Water Marks (B1) Water Marks (B1) Oxidized Rh	ed Leaves (B9) (except 4A, and 4B) B11) Britebrates (B13)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain Surface Water (A1) High Water Table (A2) Salt Crust (Bater County) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Primary Indicators: Water equired; check all that apply) Water-Stain MLRA 1, 2, Salt Crust (Bater County) Aquatic Inve	ed Leaves (69) (except 4A, and 4B) 811) ertebrates (B13) ulfide Odor (C1) uizospheres along Living	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2)	2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain MLRA 1, 2, High Water Table (A2) Salt Crust (B) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Presence of	ed Leaves (B9) (except 4A, and 4B) B11) B11) ulfide Odor (C1) uizospheres along Living F Reduced Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3)	2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain MLRA 1, 2, High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Wetland Hydrogen Schools (B3) Recent Iron	ed Leaves (69) (except 4A, and 4B) 811) ertebrates (B13) ulfide Odor (C1) uizospheres along Living	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2)	2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain MLRA 1, 2, High Water Table (A2) Salt Crust (B4) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Met or Crust (B4) Presence of Recent Iron Solis (C6)	ed Leaves (B9) (except 4A, and 4B) 311) artibrates (B13) ulfide Odor (C1) iizospheres along Living FReduced Iron (C4) Reduction in Tilled	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	2,
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain MLRA 1, 2, High Water Table (A2) Salt Crust (B Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Water Algal Mat or Crust (B4) Other (Expl	ed Leaves (B9) (except 4A, and 4B) 311) artibrates (B13) ulfide Odor (C1) iizospheres along Living FReduced Iron (C4) Reduction in Tilled	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain MLRA 1, 2, High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stain MLRA 1, 2, Salt Crust (B ML	ed Leaves (B9) (except 4A, and 4B) 311) artibrates (B13) ulfide Odor (C1) iizospheres along Living FReduced Iron (C4) Reduction in Tilled Stressed Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	2,
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain MLRA 1, 2, High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsety Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	ed Leaves (B9) (except 4A, and 4B) 311) ortebrates (B13) ulfide Odor (C1) nizospheres along Living f Reduced Iron (C4) Reduction in Tilled Stressed Plants (D1) ain in Remarks) (): (): Wetla	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)	2, C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain Surface Water (A1) MLRA 1, 2, High Water Table (A2) Salt Crust (Record of the content of t	ed Leaves (B9) (except 4A, and 4B) 311) ortebrates (B13) ulfide Odor (C1) nizospheres along Living f Reduced Iron (C4) Reduction in Tilled Stressed Plants (D1) ain in Remarks) (): (): Wetla	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)	2, C9)
Wetland Hydrology Indicators: Primary 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) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves No Depth (inches Saturation Present? Saturation Present? Ves No Depth (inches Saturation Present? Vinctures capillary fringe)	ed Leaves (B9) (except 4A, and 4B) 311) ortebrates (B13) ulfide Odor (C1) nizospheres along Living f Reduced Iron (C4) Reduction in Tilled Stressed Plants (D1) ain in Remarks) (): (): Wetla	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)	2, C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsety Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves No Depth (inches) Saturation Present? Ves No Depth (inches)	ed Leaves (B9) (except 4A, and 4B) 311) 311) artebrates (B13) ulfide Odor (C1) alizospheres along Living Freduced Iron (C4) Reduction in Titled Stressed Plants (D1) alin in Remarks) Wetta b): United Stressed Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) and Hydrology Present? Yes Notes that the season of t	2, C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain Surface Water (A1) MLRA 1, 2, High Water Table (A2) Salt Crust (B Aquatic Inverse Aquatic Inver	ed Leaves (B9) (except 4A, and 4B) 311) 311) artebrates (B13) ulfide Odor (C1) alizospheres along Living Freduced Iron (C4) Reduction in Titled Stressed Plants (D1) alin in Remarks) Wetta b): United Stressed Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) and Hydrology Present? Yes Notes that the season of t	2, C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Water-Stain Surface Water (A1) MLRA 1, 2, High Water Table (A2) Salt Crust (B Aquatic Invet) Water Marks (B1) Hydrogen S Oxidized Rh Roots (C3) Presence of Recent Iron Soils (C6) Stunted or Soils (C6) Inundation Visible on Aerial Imagery (B7) Sparsety Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches Saturation Present? (includes capillary fringe) Yes No Depth (inches Describe Recorded Data (stream gauge, monitoring well, aerial phesical primary of the Carlot of Surface (Saturation Present) Describe Recorded Data (stream gauge, monitoring well, aerial phesical primary (Saturation Present)	ed Leaves (B9) (except 4A, and 4B) 311) 311) artebrates (B13) ulfide Odor (C1) alizospheres along Living Freduced Iron (C4) Reduction in Titled Stressed Plants (D1) alin in Remarks) Wetta b): United Stressed Plants (D1)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)	2, C9)

FID 101

WEI EAND DETERMINA	TION DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch	city/county: Siskiyou C	9. Sampling Date: 8/23/2016
ADDUCATION PER FER F. S. B. C. C. A. C.	O	
investigator(s):	Section Township Range: 1	4CN CCM COLL 2 13
Landform (hillslope, terrace, etc.):	CC Local relief (concave, conve	ex, none): Concave Slope (%): Z
Subregion (ENN).	Latin In the State of the State	CALL RESEARCH CONTRACTOR OF THE CONTRACTOR OF TH
Are diffused thy choose conditions on the site for	Dical for this time of year? Yes Y No	(If no explain in Demonto)
Are Vegetation, Soil, or Hydrolo	gy No significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrolo	gy NO naturally problematic?	(if needed, explain any answers in Remarks.)
		t locations, transects, important features, et
Hydric Soll Present? Yes	No ls the Semaled Area	
Wetland Hydrology Present? Yes	No	ithin a Wetland? Yes No
Remarks:		
	ditch	
VEGETATION - Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Rlot size:)	% Cover Species? Status	The state of the s
1. 2. 3.		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Strature (Plot size:)	= 10(a) Cove	Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species SO x1 = SO
		FACW species x 2 =
		FAC species x 3 =
		FACU species x 4 =
erb Stratum (Plot size: m2)	= Total Cover	UPL species x 5 =
Salana a Alanda (Atah	5 1. 00	Column Totals: SZA) SZZ (B)
Sortano plentino acetus	50 / USL	Section Founds
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	a seguina a constituente de la c	- Rapid Test for Hydrophytic Vegetation
	in a general serv	2 - Dominance Test is >50%
		3 - Prevalence Index is <3.01
	· Charles	
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
	7 7 7 7 7	Problematic Hydrophytic Vegetation (Explain)
(= Total Cover	
pody Vine Stratum (Plot size:)	- Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	ে ১০ প্রকাশসার্থ কর গ	5 0 000000
	A Said at the said	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation
The second secon		Present? Yes No
marks:		
		· ·
		ľ

SOIL			পুটালাগাড়ে চলাল্	S
Profile Description: (Describe to the	lepth needed to document the ind	icator or confirm the	absence of indicators.)	
Depth Matrix	Redox.Feat	ures	Texture	Remarks
(inches) Color (moist) %	Color (moist) %			
0-18 1042312 DD	<u> 542416 10</u>	M	Sanay Loc	lm
	•		, , , , , , , , , , , , , , , , , , ,	
				 -
			<u> </u>	<u> </u>
			_	
¹ Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered o	r Coated Sand Grains.	² Location: PL=Pore Li	ning, M=Matrix.
			dicators for Problematic	Hydric Soils ³ :
Hydric Soil Indicators: (Applicable to		2.)		Try Cino Como .
Histosol (A1)	Sandy Redox (S5)	_	2 cm Muck (A10) Red Parent Material (TF2) \
Histic Epipedon (A2)	Stripped Matrix (S6)	event MI PA 1)	Very Shallow Dark Surfa	ce (TF12)
Black Histic (A3)	Loamy Mucky Mineral (F1) (Loamy Gleyed Matrix (F2)	except MLRA ()	Other (Explain in Remark	(S)
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11			• \ \	•
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophytic	vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology must	oe present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or probl	ematic
Restrictive Layer (if present):			, ,,, , x , ,	No
Туре:		Hydric Soil Present	7 Yes	40
Depth (inches):		<u> </u>		
HYDROLOGY			· <u>-</u>	
Wetland Hydrology Indicators:			ondary Indicators (2 or mo	re required)
Primary Indicators (minimum of one requi	red; check all that apply) Water-Stained Leaves (Water-Stained Leaves (B9) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, and 4B		4A, and 4B)	, (
High Water Table (A2)	Salt Crust (B11)		Drainage Patterns (B10)	
Saturation (A3)	Aquatic Invertebrates (B	13)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor		Saturation Visible on Aeria	il Imagery (C9)
	Oxidized Rhizospheres	along Living	Geomorphic Position (D2)	
Sediment Deposits (B2)	Roots (C3)		Geomorphic Position (D2) Shallow Aquitard (D3)	
Drift Deposits (B3)	Presence of Reduced In Recent Iron Reduction in		Oligion Adoligia (Do)	
Algal Mat or Crust (B4)	Soils (C6)		FAC-Neutral Test (D5)	
Algai Mat Of Citost (D4)	Stunted or Stressed Pla	nts (D1)		
Iron Deposits (B5)	(LRR A)		Raised Ant Mounds (D6)	
Surface Soil Cracks (B6)	Other (Explain in Rema	rks)	Frost-Heave Hummocks (U/)
Inundation Visible on Aerial Imagery (B7)			
Sparsely Vegetated Concave Surface	(88)			
Field Observations:				4
	No Depth (inches):	Λ		X
	No Depth (inches):	Wetland Hyd	Irology Present? Yes	/ No
Saturation Present?		{		
(includes capillary fringe) Yes	No Depth (inches):			
Describe Recorded Data (stream gauge, n	nonitoring well, aerial photos, previou	us Inspections), if availa	ible:	
		<u></u>		<u> </u>
Remarks:				

WETLAND DETERMIN	IATION DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: HAVE KANCH	city/County: Siskiyou	0.4 Sampling Date: 8/23/2016
Investigator(s): force Kane	Section Township Pages:	GCN CON STATE OF THE STATE OF T
	LOUI. THE REAL PROPERTY OF THE PARTY OF THE	692445 Datum: NAN 83
Con Map Chic Hairie.	are cial tables con	ARAH -IIC
Are climatic / hydrologic conditions on the site i	Voical for this time of year? Yes VI	///
The vogetation , Soil , or Hydro	NOGY IND Significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydro	logy NO naturally problematic?	(if needed, explain any answers in Remarks.)
		·
Hydrophytic Vegetation Present? Yes	ite map showing sampling poin	t locations, transects, important features, et
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No Sampled Area w	· · · · · · · · · · · · · · · · · · ·
Remarks:		
1		
VEGETATION - Use scientific names	s of plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
1	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3.		Total Number of Dominant
3.		Species Across All Strata: (B)
-		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		I nat Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum Plot size:)	= Total Cover	
1.		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
3.		OBL species x 1 =
		FACW species x 2 =
5.		FAC species x3 =
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 177	= 10tal Cover	UPL species (D) x5 = 300
· Elymus elympides	CO V UPL	Column Totals: (A) 300 (B)
Poa so	70	4.00
3		Prevalence index = B/A =
		Hydrophytic Vegetation Indicators:
	e april the companies of	PACE
		1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
		3 - Prévalence index is ≤3.0¹
	No. of the last of	
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
0,		5 - Wetland Non-Vascular Plants¹
1	The Mark Control	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	¹Indicators of hydric soil and wetland hydrology must
(Plot size:)		be present, unless disturbed or problematic.
	A March Carlotte	TO PROPERTY AND A STATE OF THE PARTY AND A STA
Bare Ground in Herb Stratum 20	= Total Cover	Hydrophytic Vegetation Present? Yes No
	1	100
emarks:		
		1
		1
		1

OIL			Sampling 20101	
Profile Description: (Describe to the de	pth needed to document the indi- Redox Featu	cator or confirm the	anacilie of Hillioners.)	•
Depth Matrix (inches) Color (moist) %	Color (moist) %	Type Loc2	Texture	Remarks
(inches) Color (moist) %			100m	
0-18 1048312 100				
**				
			. 	
Type: C=Concentration, D=Depletion, RI	M=Reduced Matrix, CS=Covered or	Coated Sand Grains	² Location: PL=Pore Li	ning, M=Matrix.
			dicators for Problematic	Hydric Soils ³ :
Hydric Soil Indicators: (Applicable to			2 cm Muck (A10)	•
Histosol (A1)	Sandy Redox (S5)		Red Parent Material (TF2	2)
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (excent MI RA 1)	Very Shallow Dark Surfa	ce (TF12)
Black Histic (A3)	Loamy Mucky Mineral (F1) (C		Other (Explain in Remark	(s) ·
Hydrogen Sulfide (A4)	Depleted Matrix (F3)			
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophytic	vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology must i	oe present,
Sandy Mucky Milleral (31) Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or probl	ematic
- Juliary Gray Gray Mains (4-1)				_
estrictive Layer (if present):	1		? Yes	v _o V
Type:		Hydric Soil Present	Yes	10X
Depth (inches):				
narks:				
YDROLOGY				
Vetland Hydrology Indicators:	Lataria eli dinatamenta	Sec	condary Indicators (2 or mo	re required)
rimary Indicators (minimum of one require	Water-Stained Leaves (E		Water-Stained Leaves (BS) (MLRA 1, 2,
Surface Mater (A4)	MLRA 1, 2, 4A, and 4B)) (4A, and 4B)	•
Surface Water (A1) High Water Table (A2)	Salt Crust (B11)	_	Drainage Patterns (B10)	
Saturation (A3)	Aquatic Invertebrates (B	13)	Dry-Season Water Table	(C2)
Water Marks (B1)	Hydrogen Sulfide Odor ((C1)	Saturation Visible on Aeria	al Imagery (C9)
**************************************	Oxidized Rhizospheres			
	CAULZED KILLOSPITETES	Stoud Fixing		
Sediment Deposits (B2)	Roots (C3)		Geomorphic Position (D2)	
Sediment Deposits (B2) Drift Deposits (B3)	Roots (C3) Presence of Reduced In	on (C4)	Geomorphic Position (D2) Shallow Aquitard (D3)	
Sediment Deposits (B2) Drift Deposits (B3)	Roots (C3) Presence of Reduced In Recent Iron Reduction in	on (C4)	Shallow Aquitard (D3)	
	Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6)	on (C4)		
Drift Deposits (B3)	Roots (C3) Presence of Reduced Interest Iron Reduction in Soils (C6) Stunted or Stressed Pla	on (C4)	Shallow Aquitard (D3) FAC-Neutral Test (D5)	
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Ropts (C3) Presence of Reduced Ire Recent Iron Reduction is Soils (C6) Stunted or Stressed Pla	on (C4)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soli Cracks (B6)	Ropts (C3) Presence of Reduced Interest Iron Reduction in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remai	on (C4)	Shallow Aquitard (D3) FAC-Neutral Test (D5)	(LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B	Ropts (C3) Presence of Reduced Interpretation in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail	on (C4)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6)	Ropts (C3) Presence of Reduced Interpretation in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail	on (C4)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Ropts (C3) Presence of Reduced Interpretation in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail	on (C4)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (ield Observations:	Ropts (C3) Presence of Reduced In Recent Iron Reduction is Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail	on (C4) n Tilled nts (D1)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((LRR A) D7)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soli Cracks (B6) inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes	Ropts (C3) Presence of Reduced Interpretation in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail Plants) Objective (Inches):	on (C4) n Tilled nts (D1)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(LRR A) D7)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes Nater Table Present? Yes Nater Table Present?	Ropts (C3) Presence of Reduced Interpretation in Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail	on (C4) n Tilled nts (D1)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((LRR A) D7)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present?	Roots (C3) Presence of Reduced Ire Recent Iron Reduction is Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail Depth (inches): Depth (inches):	on (C4) n Tilled ints (D1) rks) Wetland Hy	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((LRR A) D7)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present?	Roots (C3) Presence of Reduced Ire Recent Iron Reduction is Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail Depth (inches): Depth (inches):	on (C4) n Tilled ints (D1) rks) Wetland Hy	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((LRR A) D7)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Burface Water Present? Yes N Staturation Present?	Roots (C3) Presence of Reduced Ire Recent Iron Reduction is Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail Depth (inches): Depth (inches):	on (C4) n Tilled ints (D1) rks) Wetland Hy	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((LRR A) D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (ield Observations: surface Water Present? Yes N Vater Table Present? Yes N caturation Present? includes capillary fringe) Yes N scribe Recorded Data (stream gauge, mo	Roots (C3) Presence of Reduced Ire Recent Iron Reduction is Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail Depth (inches): Depth (inches):	on (C4) n Tilled ints (D1) rks) Wetland Hy	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((LRR A) D7)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (ield Observations: urface Water Present? Yes N vater Table Present? Yes N vater Sacillary fringe Yes N	Roots (C3) Presence of Reduced Ire Recent Iron Reduction is Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail Depth (inches): Depth (inches):	on (C4) In Tilled Ints (D1) Inks) Wetland Hy Us inspections), if avail	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks (drology Present? Yes lable:	(LRR A) D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (ield Observations: surface Water Present? Yes N Vater Table Present? Yes N caturation Present? ncludes capillary fringe) Yes N scribe Recorded Data (stream gauge, mo	Roots (C3) Presence of Reduced Ire Recent Iron Reduction is Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Remail Depth (inches): Depth (inches):	on (C4) In Tilled Ints (D1) Inks) Wetland Hy Us inspections), if avail	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((LRR A) D7)

Applicant/Owner: Investigator(s): Landform (hillslope, terrace, etc.): Subregion (LRR): MLKA 22B Soil Map Unit Name: Are climatic / hydrologic conditions on the site typi Are Vegetation Are Vegetation Soil Or Hydrolog SUMMARY OF FINDINGS — Attach site Hydrophytic Vegetation Present? Hydroc Soil Present? Yes Yes	Section, Township, Range: Local relief (concave, conve. Lat: 722, 38989 Long: 41.6 Local for this time of year? Yes X No significantly disturbed? Are by NO naturally problematic?	ing Point: 45 N
Remarks:	Pastur	
VEGETATION - Use scientific names of	of nlante	
Tree Stratum (Plot size:) 1. 2. 3. 4.	Absolute Dominant Indicator <u>% Cover Species? Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:) 1. 2. 3. 4. 5. Herb Stratum (Plot size: IM2 1. Pseudorcane in Spicata 2. Elitting regens 3. For oranges is	= Total Cover TO V I/PL YO V PAC	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species
4.		Hydrophytic Vegetation Indicators:
5. 6. 7. 8. 9. 10. 11.	= Total Cover	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
1	= Total Cover	Hydrophytic Vegetation Present? Yes No
Remarks:		

SOIL			Sempling Folds 39
Profile Description: (Describe to the dept	h needed to document the indic	ator or confirm the	absence of indicators.)
Depth Matrix	Redox Featur	es	_
(inches) Color (moist) %	Color (moist) %	Type Loc²	Texture Remarks
0-18 1048312 100			10am
			(
			· ————
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered or	Coated Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all	I DDs unless otherwise noted t	Inc	licators for Problematic Hydric Soils ³ :
· · · · · · · · · · · · · · · · · · ·	· ·	*****	2 cm Muck (A10)
Histosol (A1) Histic Epipedon (A2)	Sandy Redox (S5) Stripped Matrix (S6)		Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (ex	cept MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		, ,
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or problematic
Restrictive Layer (if present):			* *
Time	la la	Hydric Soil Present?	Yes No
Depth (Inches):		nyano oon r teserki	
Remarks:			
	§		
		attention of the second	
	noindic	ad of	
	hoindic	adios.	
HYDROLOGY	no Indic	ative	
HYDROLOGY Wetland Hydrology Indicators:			
	theck all that apply)	Seco	ndary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of	heck all that apply) Water-Stained Leaves (89	Seco	Vater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; c Surface Water (A1)	theck all that apply) Water-Stained Leaves (89 MLRA 1, 2, 4A, and 4B)	Seco	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2)	heck all that apply) Water-Stained Leaves (B9 MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Secondary (Secondary) (except V	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) Trainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2) Saturation (A3)	theck all that apply) Water-Stained Leaves (B9 MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13	Second V V V V V V V V V V V V V V V V V V V	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) Prainage Patterns (B10) Pry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of Surface Water (A1) High Water Table (A2)	check all that apply) Water-Stained Leaves (B9 MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13 Hydrogen Sulfide Odor (C	Second V	Vater-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) Trainage Patterns (B10)
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. 0		mountains, valleys, and Coast Region
Project/Site: Hart Ranch	City/County: Siski Und Ci	8/22/2011
Applicant/Owner: Hart Ranch Investigator(s): Movia Ranch Landform (hillistope terrace etc.): 100100	State: CA Same	Ular Point:
Investigator(s): Andrea Raine	Section Township Range:	46N 26U Sect. 213
	Local relief (concave, conve	DICINO SECTIONS
Subregion (LRR): MLRA 22R	Lattan zerelatione VI	02000
Soil Map Unit Name: 153 9076	The Silt 100mg	ARAH elections St. AAA
Are Vegetation	voical for this time of year? Vec V	NWI classification: PEMC
Are Vegetation , Soil , or Hydrol	OGV NO significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrol	99V ND naturally problematic?	(If needed, cyclein any convers in Bassatia)
SUMMARY OF FINDINGS - Attach s	ite map showing sampling poin	t locations, transects, important features, etc
	110 179	
Wetland Hydrology Present? Yes Yes	No Is the Sampled Area w	ithin a Wetland? Yes No X
Remarks:	No Y	
Remarks:		
<u> </u>		
VEGETATION - Use scientific names	of plants	
The state of the s		
Tree Stratum (Plot size:)	Absolute Dominant Indicator <u>% Cover</u> Species? Status	1
1.	% Cover Species? Status	Number of Dominant Species
2.		That Are OBL, FACW, or FAC: (A)
3.		Total Number of Dominant Species Across All Strata: (B)
4		Species Across All Strata: (B) Percent of Dominant Species
		That Are OBL, FACW, or FAC: 50 (A/B)
	- T-110	(12)
Sapling/Shrub Stratum (Plot size:	= Total Cover	Secuciones to decrease to
1.		Prevalence Index worksheet:
2.	-	Total % Cover of: Multiply by:
3.		OBL species x1 =
- b		FACW species x 2 =
5.		FAC species x3 = 60
	-7-110	FACU species SD x4= 320
Herb Stratum (Plot size: 1m2	= Total Cover	UPL species x 5 =
1. Elymus elymoides	80 V FACU	Column Totals: 100 (A) 380 (B)
2. Poa pratensis	TO V Fac	
3.	W Y FAC	Prevalence index = B/A = 3.8
	and the contract of the contra	Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	34 1 180 A S	2 - Domlnance Test is >50%
		3 - Prevalence Index is ≤3.0¹
		4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
0 1	1 20 No	5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation¹ (Explain)
Voody Vine Stratum (Plet size:	80 = Total Cover	Indicators of hydric soil and wetland hydrology must
(Field Size:)	1	be present, unless disturbed or problematic.
		COS A STATE OF THE
	3 .40 th 300	Hydrophytic
6 Bare Ground in Herb Stratum	= Total Cover	Vegetation
Service of the paragram	-	Present? Yes No
emarks:		
		1

HL							मिट्टा है जाग	40
rofile Description: (Describe	to the depth	needed to docun	nent the inc	licator or co	nfirm the a	bsence of inc	dicators.)	
Depth Matrix	%	Color (moist)	Redox Fea	Type'	Loc²	Textu	re	Remarks
inches) Color (moist)		Color (Inolar)				100 "	A.é.	
218 10 423/2	00					<u>LOLLY</u>	<i>F</i> \	
						-		
					nd Crains	2l ocation:	Pl =Pore	Lining, M=Matrix.
Type: C=Concentration, D=Dep								
Hydric Soil Indicators: (Appli	cable to all L	.RRs, unless othe	rwise note	d.)	inc			ic Hydric Soils ³ :
Histosol (A1)		Sandy Redox (S				2 cm Muck (A Red Parent N		E0)
Histic Epipedon (A2)	_	Stripped Matrix	(S6)	/avaant MI E		Very Shallow	nateriai (i Dark Sur	face (TF12)
Black Histic (A3)		Loamy Mucky M Loamy Gleyed N	uneral (F1) Jatrix (F2)	(excebt MFH	M	Other (Explain	n in Rem	arks)
Hydrogen Sulfide (A4) Depleted Below Dark Surfa	ce (A11) —	Depleted Matrix						
Thick Dark Surface (A12)		Redox Dark Sur				3Indicators of	hydrophy	tic vegetation and
Sandy Mucky Mineral (S1)	-	Depleted Dark S	Surface (F7))		wetland hydro	ology mu	st be present,
Sandy Gleyed Matrix (S4)		Redox Depressi	ions (F8)			uniess distur	oea or pro	bolematic
- A - Adam - A								
strictive Layer (if present):				Hydric So	il Present	? Yes		No <u>X</u>
* * * * * * * * * * * * * * * * * * * *				11,70,110,00				/-
Depth (Inches):				1				
narks:								
	4		h	pind	cat	270		
DROLOGY			hį	oind	cat	075		
DROLOGY etland Hydrology Indicators:	pe required: c	heck all that anniv		pind	Seo	ondary Indicate	ors (2 or r	nore required)
DROLOGY etland Hydrology Indicators:	ne required; c	heck all that apply Water-Stain)		Sec	ondary Indicate	ors (2 or r Leaves (nore required) B9) (MLRA 1, 2,
DROLOGY etland Hydrology Indicators:	ne required; c	heck all that apply Water-Stain MLRA 1, 2,) ed Leaves (B9) (except	Sec	ondary Indicate Water-Stained	Leaves (B9) (MLRA 1, 2,
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2)	ne required; c	Water-Stain MLRA 1, 2, Salt Crust (f	ed Leaves (4A, and 4 E	B9) (except	Sec	ondary Indicate Water-Stained 1A, and 4B) Orainage Patte	Leaves (ems (B10	B9) (MLRA 1, 2,)
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DROLOGY etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2)	ne required; c	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve	ed Leaves (4A, and 4E 311) ertebrates (l ulfide Odor	B9) (except) 313) (C1)	Seco	ondary Indicate Water-Stained 1A, and 4B) Orainage Patte Dry-Season W	Leaves (erns (B10 ater Tabl	B9) (MLRA 1, 2,)
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DROLOGY etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Irr Sparsely Vegetated Concave etd Observations: urface Water Present? Yes later Table Present? Yes aturation Present? Yes aturation Present?	nagery (B7) Surface (B8) No	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expl	ed Leaves (4A, and 4B 311) ertebrates (I ulfide Odor nizospheres Reduced I Reduction Stressed Pla ain in Remain):	(B9) (except 313) (C1) along Living ron (C4) in Tilled ants (D1)	Second Hydeletiand	ondary Indicate Water-Stained 1A, and 4B) Orainage Patte Dry-Season W Saturation Visi Geomorphic P Shallow Aquita FAC-Neutral T Ralsed Ant Mc Frost-Heave H	Leaves (Perns (B10 Fater Table ble on Ae Cosition (D Cosition (D3) Fest (D5) Counds (D6) Counds (D6) Counds (D6) Counds (D6)	B9) (MLRA 1, 2,) e (C2) srial Imagery (C9) (2) (5) (LRR A) (5 (D7)
etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Irr Sparsely Vegetated Concave eld Observations: urface Water Present? Yes fater Table Present? Yes aturation Present? Includes capillary fringe) Yes scribe Recorded Data (stream g	nagery (B7) Surface (B8) No	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expl	ed Leaves (4A, and 4B 311) ertebrates (I ulfide Odor nizospheres Reduced I Reduction Stressed Pla ain in Remain):	(B9) (except 313) (C1) along Living ron (C4) in Tilled ants (D1)	Second Hydeletiand	ondary Indicate Water-Stained 1A, and 4B) Orainage Patte Dry-Season W Saturation Visi Geomorphic P Shallow Aquita FAC-Neutral T Ralsed Ant Mc Frost-Heave H	Leaves (Perns (B10 Fater Table ble on Ae Cosition (D Cosition (D3) Fest (D5) Counds (D6) Counds (D6) Counds (D6) Counds (D6)	B9) (MLRA 1, 2,) e (C2) srial Imagery (C9) (2) (5) (LRR A) (5 (D7)
etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave ield Observations: urface Water Present? //deservation Present?	nagery (B7) Surface (B8) No	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expl	ed Leaves (4A, and 4B 311) ertebrates (I ulfide Odor nizospheres Reduced I Reduction Stressed Pla ain in Remain):	B9) (except 3) 313) (C1) along Living ron (C4) in Tilled ants (D1) arks) We us inspection	etland Hyd	ondary Indicate Water-Stained 1A, and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic P Shallow Aquita FAC-Neutral T Raised Ant Mc Frost-Heave F	Leaves (Perns (B10 Fater Table ble on Ae Cosition (D Cosition (D3) Fest (D5) Counds (D6) Counds (D6) Counds (D6) Counds (D6)	B9) (MLRA 1, 2,) e (C2) srial Imagery (C9) (2) (5) (LRR A) (5 (D7)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Irr Sparsely Vegetated Concave eld Observations: urface Water Present? Yes ater Table Present? Yes ater Table Present? includes capillary fringe) Yes scribe Recorded Data (stream g	nagery (B7) Surface (B8) No	Water-Stain MLRA 1, 2, Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Roots (C3) Presence of Recent Iron Soils (C6) Stunted or S (LRR A) Other (Expl	ed Leaves (4A, and 4B 311) ertebrates (I ulfide Odor nizospheres Reduced I Reduction Stressed Pla ain in Remain):	B9) (except 3) 313) (C1) along Living ron (C4) in Tilled ants (D1) arks) We us inspection	etland Hyd	ondary Indicate Water-Stained 1A, and 4B) Orainage Patte Dry-Season W Saturation Visi Geomorphic P Shallow Aquita FAC-Neutral T Ralsed Ant Mc Frost-Heave H	Leaves (Perns (B10 Fater Table ble on Ae Cosition (D Cosition (D3) Fest (D5) Counds (D6) Counds (D6) Counds (D6) Counds (D6)	B9) (MLRA 1, 2,) e (C2) vrial Imagery (C9) (2) (3) (LRR A) s (D7)

Investigator(s): MCKA KAGE Landform (hillslope, terrace, etc.): TOTA Subregion (LRR): MLRA 22R Soil Map Unit Name: 153 Gard Are climatic / hydrologic conditions on the site type Are Vegetation Soil or Hydrologic Are Vegetation Soil or Hydrologic SUMMARY OF FINDINGS - Attach site Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes Wetland Hydrology Present? Yes	Local relief (concave, converged Lat. / 22.38 W. 20 Long: 41.6 Lon	ling Point: 42 45 N
Remarks:		
VEGETATION – Use scientific names	of plants.	
Tree Stratum (Plot size:) 1. 2. 3. 4.	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A) (B)
Sapling/Shrub Stratum (Plot size:) 1	= Total Cover = Total Cover HO Y UPL 30 Y FACH	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species
0.	= Total Cover	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
Bare Ground in Herb Stratum 70	= Total Cover	Hydrophytic Vegetation Present? Yes No
emarks;		

SOIL			হুলুলোলালা ইতানি	
Profile Description: (Describe to the dept	h needed to document the ind	icator or confirm the	absence of indicators.)	
Depth Matrix	Redox Feat	ures	Texture	Remarks
(inches) Color (moist) %	Color (moist) %	Type' Loc²	. -	Tremano
0-18 10423/2 100	<u> </u>		loam	
			·	
1				
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered of	r Coated Sand Grains.	² Location: PL=Pore Lir	ning, M=Matrix.
			dicators for Problematic	Hydric Soils³:
Hydric Soil Indicators: (Applicable to all		···	2 cm Muck (A10)	
Histosol (A1)	Sandy Redox (S5)	-	Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface	ce (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Remark	(s) ົ
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	_	, , , , , , , , , , , , , , , , , , ,	
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophytic	
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology must tunless disturbed or proble	
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	,	unless disturbed or proble	emanc
Destablish to see (If property				
Restrictive Layer (if present):		Hydric Soil Present	? Yes h	No X
Type: Depth (inches):		11,4110 00111 100011		
		<u> </u>		
Remarks:				
	to the second			
	no india	atous		
	noindia	catous		
HYDROLOGY	no india	cators		
Wetland Hydrology Indicators:			ondany Indicators /2 or mo	re required)
	check all that apply)	Sec	ondary Indicators (2 or mo	re required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required;	check all that apply) Water-Stained Leaves (Sec B9) (except	ondary Indicators (2 or mo Water-Stained Leaves (B9	re required)) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B	Sec B9) (except)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10)) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B	Sec B9) (except)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table () (MLRA 1, 2, C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (BHydrogen Sulfide Odor	Sec B9) (except)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10)) (MLRA 1, 2, C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (BHydrogen Sulfide Odor Oxidized Rhizospheres	Sec B9) (except)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)	Sec B9) (except) i13) (C1) along Living	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2)) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In	Sec B9) (except) (13) (C1) along Living on (C4)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i	Sec B9) (except) (13) (C1) along Living on (C4)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2)) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In	Sec B9) (except)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A)	Sec B9) (except) (13) (C1) along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (in Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (in 1986)) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla	Sec B9) (except) (13) (C1) along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	Sec B9) (except) (13) (C1) along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (in Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (in 1986)) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	Sec B9) (except) (13) (C1) along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (in Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (in 1986)) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	Sec B9) (except) (13) (C1) along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (in Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (in 1986)) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations:	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	Sec B9) (except) (13) (C1) along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (in Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (in 1986)) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	Sec B9) (except) (13) (C1) along Living on (C4) n Tilled nts (D1) rks)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (Frost-Heave Hummocks (I) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	Sec B9) (except) (13) (C1) along Living on (C4) n Tilled nts (D1) rks)	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (Frost-Heave Hummocks (I) (MLRA 1, 2, C2) Il Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe)	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema) Depth (inches): Depth (inches):	Sec B9) (except) (C1) along Living on (C4) n Tilled nts (D1) rks) Wetland Hyd	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (Frost-Heave Hummocks (I) (MLRA 1, 2, C2) Il Imagery (C9)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No Describe Recorded Data (stream gauge, monit	check all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema) Depth (inches): Depth (inches):	Sec B9) (except) (13) (C1) along Living on (C4) n Tilled nts (D1) rks) Wetland Hyd as inspections), if availa	Water-Stained Leaves (B9 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (Frost-Heave Hummocks (I) (MLRA 1, 2, C2) Il Imagery (C9)

. ^	The state of the s	rountains, valleys, and Coast Region
Project/Site: Harkanch	city/county: Siskiyou C	Sampling Date: 8/23/20110
Applicativowner: TTAYT KAINCIA	State (A Com	line Dates
investigator(s): THE LATE IN THE	Section Township Pages 1	SEN CIN SOLL 2 . 3
Lanutum (missope, terrace, etc.): The	Of E	A A COLUMN TO THE TAX A CO
Obbiogion (Civit).	Lating (a) 1. Sept. 15. Note: 1 concerns the first	2 C THE STATE OF T
Soli Map Unit Name: 159 Crowlette 1	CUT I COME CO A ALL ALALI ALALI	ARAU -115
Are curriatic / hydrologic conditions on the site to	/Dical for this time of year? Yes V No.	(If no explain to Demont 1)
Are regoration, Suit, or Hydrok	ogy [VU] significantly disturbed? Are	"Normal Circumstances" present? Voc. X
Are Vegetation, Soil, or Hydroto	pgy ND naturally problematic?	(If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes	te map showing sampling poin	t locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Yes	. 110	
Wetland Hydrology Present? Yes	No Is the Sampled Area w	ithin a Wetland? Yes No _X
Remarks:		
VEGETATION - Use scientific names	of plants.	
Tron Stratum / (Blot size)	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
7.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		(AB)
Sapling/Shrub Stratum (Plot size:	= Total Cover	Description of the second of t
1.		Prevalence Index worksheet:
2.		Total % Cover of: Multiply by:
3.		OBL species x1 =
		FACW species x2 =
5.		FAC species <u>40</u> x 3 = 120
	= Total Cover	FACU species x 4 =
lerb Stratum (Plot size: 1m2)	= rotal Cover	UPL species x 5 =
Poa pratensis	40 V FAC	Column Totals: 40 (A) 120 (B)
· Elytria a repens	ZO Y NT	
3	100	Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	* 654 - V + 7671 **	40.1
		1 - Rapid Test for Hydrophytic Vegetation
	La Dona Cal	2 - Dominance Test is >50%
	(284 GP)	3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants ¹
1	24 44 44	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	¹Indicators of hydric soil and wetland hydrology must
/oody Vine Stratum (Plot Size:)		be present, unless disturbed or problematic.
	A Section of the second	Hardron had har hard
3	= Total Cover	nyurophytic
Bare Ground in Herb Stratum 30		Vegetation Present? Yes No
	}	NV
emarks:		
		}

OIL					<u> </u>	areaing ()
UIL Brofile Descri	intion: /Describe	to the denti	needed to document to	the indicator or cor	firm the absence of indic	
Depth	Matrix	to the depti	Redo	ox Features		
(inches)	Color (moist)	%	Color (moist)	% Type¹	Loc ² Texture	Remarks
D /-	1048412	100	•		laam	
0-0	(UYF 16	100			7507	rad San B
5-18	DYRTE	100			Cemen	rod Sand
	-					
			- Idea			
			-		•	
			//==			
						
¹Type: C≖Cor	centration, D=Dep	oletion, RM=	Reduced Matrix, CS=Co	vered or Coated Sar		=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Appli	cable to all	LRRs, unless otherwise	e noted.)	Indicators for Prol	elematic Hydric Soils ³ :
Histosol (Sandy Redox (S5)		2 cm Muck (A16))
	pedon (A2)	-	Stripped Matrix (S6)		Red Parent Mat	erial (TF2)
Black His		_	Loamy Mucky Minera	il (F1) (except MLR/	(1) Very Shallow D	ark Surface (TF12)
- Hydroner	Sulfide (A4)	_	Loamy Gleyed Matrix		Other (Explain i	n Remarks)
Depleted	Below Dark Surface	ce (A11)	Depleted Matrix (F3)			
	rk Surface (A12)		Redox Dark Surface	(F6)	³ Indicators of hy	drophytic vegetation and
	ucky Mineral (S1)	_	 Depleted Dark Surface 		wetland hydrolo	gy must be present,
	eyed Matrix (S4)	_	Redox Depressions (F8)	unless disturbe	or problematic
			-			t
estrictive Lay	er (if present):					😾
Type:				Hydric Soi	Present? Yes	No
Depth (inche						
						
marks:						
		no in	dicators			
VDD01 001	•					
YDROLOGY	logy Indicators:				· · · · · · · · · · · · · · · · · · ·	<u> </u>
Primaru Indicate	ore /minimum of or	e required: o	check all that apply)		Secondary Indicators	(2 or more required)
minary moreate	ora (minimum or or	ic required;	Water-Stained Le	eaves (B9) (except	Water-Stained Le	aves (B9) (MLRA 1, 2,
Surface Wat	er (A1)		MLRA 1, 2, 4A, a	nd 4B)	4A, and 4B)	
High Water			Salt Crust (B11)		Drainage Pattern	
Saturation (A			Aquatic Invertebr	ates (B13)	Dry-Season Wat	er Table (C2)
Water Marks			Hydrogen Sulfide	Odor (C1)	Saturation Visible	on Aerial Imagery (C9)
	(51)			heres along Living		
Sediment De	enosits (B2)		Roots (C3)		Geomorphic Pos	
Drift Deposit			Presence of Red		Shallow Aquitard	(D3)
	S (B3)			uotion in Tilled		
_ =:::: = opooi:	IS (B3)		Recent Iron Redi	uctioti iti i meu		
•			Recent Iron Redi	uctio(1 k1 1 med	FAC-Neutral Tes	t (D5)
_ Algal Mat or						
Algal Mat or	Crust (B4)		Soils (C6) Stunted or Stress (LRR A)	sed Plants (D1)	Raised Ant Mour	ds (D6) (LRR A)
Algal Mat or	Crust (B4) s (B5)		Soils (C6) Stunted or Stress	sed Plants (D1)		ds (D6) (LRR A)
Algal Mat or Iron Deposit Surface Soil	Crust (B4)	agery (B7)	Soils (C6) Stunted or Stress (LRR A)	sed Plants (D1)	Raised Ant Mour	ds (D6) (LRR A)
Algal Mat or iron Deposit Surface Soil Inundation V	Crust (B4) s (B5) Cracks (B6) /isible on Aerial Im		Soils (C6) Stunted or Stress (LRR A) Other (Explain in	sed Plants (D1)	Raised Ant Mour	ds (D6) (LRR A)
Algal Mat or Iron Deposit Surface Soil Inundation V	Crust (B4) s (B5) Cracks (B6)		Soils (C6) Stunted or Stress (LRR A) Other (Explain in	sed Plants (D1)	Raised Ant Mour	ds (D6) (LRR A)
Algal Mat or iron Deposit Surface Soil Inundation Versies Sparsely Ve	Crust (B4) s (B5) Cracks (B6) /isible on Aerial Im getated Concave S		Soils (C6) Stunted or Stress (LRR A) Other (Explain in	sed Plants (D1)	Raised Ant Mour	ds (D6) (LRR A)
Algal Mat or iron Deposit Surface Soil Inundation Venezation Sparsely Venezation Observation	Crust (B4) s (B5) Cracks (B6) /isible on Aerial Imgetated Concave Stions:		Soils (C6) Stunted or Stress (LRR A) Other (Explain in	sed Plants (D1) Remarks)	Raised Ant Mour	nds (D6) (LRR A) nmocks (D7)
Algal Mat or iron Deposit Surface Soil Inundation V Sparsely Ve ield Observat Gurface Water	Crust (B4) s (B5) Cracks (B6) /isible on Aerial Imgetated Concave stions: Present? Yes	Surface (B8)	Soils (C6) Stunted or Stress (LRR A) Other (Explain in	sed Plants (D1) Remarks)	Raised Ant Mour	nds (D6) (LRR A) nmocks (D7)
Algal Mat or Iron Deposit Surface Soil Inundation V Sparsely Ve Field Observat Surface Water I Water Table Pri	Crust (B4) s (B5) Cracks (B6) /isible on Aerial Imgetated Concave stions: Present? Yes yes	Surface (B8)	Soils (C6) Stunted or Stress (LRR A) Other (Explain in	sed Plants (D1) Remarks)	Raised Ant Mour	nds (D6) (LRR A) nmocks (D7)
Algal Mat or Iron Deposit Surface Soil Inundation V Sparsely Ve Field Observat Surface Water Table Prosaturation Presincludes capille	Crust (B4) s (B5) l Cracks (B6) //sible on Aerial Imgetated Concave stions: Present? Yes esent? Yes sent? ary fringe) Yes	Surface (B8)	Soils (C6) Stunted or Stress (LRR A) Other (Explain in Depth (inches): Depth (inches):	sed Plants (D1) Remarks) We	Raised Ant Mour	nds (D6) (LRR A) nmocks (D7)
Algal Mat or Iron Deposit Surface Soil Inundation V Sparsely Ve Field Observat Surface Water Vater Table Prosaturation Presincludes capille	Crust (B4) s (B5) l Cracks (B6) //sible on Aerial Imgetated Concave stions: Present? Yes esent? Yes sent? ary fringe) Yes	Surface (B8)	Soils (C6) Stunted or Stress (LRR A) Other (Explain in Depth (inches): Depth (inches):	sed Plants (D1) Remarks) We	Raised Ant Mour	nds (D6) (LRR A) nmocks (D7)
Algal Mat or Iron Deposit Surface Soil Inundation V Sparsely Ve Seld Observer Vater Table Prosecution Presence Control Presen	Crust (B4) s (B5) l Cracks (B6) //sible on Aerial Imgetated Concave stions: Present? Yes esent? Yes sent? ary fringe) Yes	Surface (B8)	Soils (C6) Stunted or Stress (LRR A) Other (Explain in Depth (inches): Depth (inches):	sed Plants (D1) Remarks) We	Raised Ant Mour	nds (D6) (LRR A) nmocks (D7)
Algal Mat or Iron Deposit Surface Soil Inundation V Sparsely Ve Sield Observat Surface Water I Vater Table Pro Saturation Presincludes capilla escribe Record	Crust (B4) s (B5) l Cracks (B6) //sible on Aerial Imgetated Concave stions: Present? Yes esent? Yes sent? ary fringe) Yes	Surface (B8)	Soils (C6) Stunted or Stress (LRR A) Other (Explain in Depth (inches): Depth (inches): Depth (inches):	Remarks) We previous inspections	Raised Ant Mour Frost-Heave Hur	nds (D6) (LRR A) nmocks (D7)
Algal Mat or Iron Deposit Surface Soil Inundation V Sparsely Ve Field Observat Surface Water Table Prosaturation Presincludes capille	Crust (B4) s (B5) l Cracks (B6) //sible on Aerial Imgetated Concave stions: Present? Yes esent? Yes sent? ary fringe) Yes	Surface (B8)	Soils (C6) Stunted or Stress (LRR A) Other (Explain in Depth (inches): Depth (inches): Depth (inches):	Remarks) We previous inspections	Raised Ant Mour Frost-Heave Hur	nds (D6) (LRR A) nmocks (D7)
Algal Mat or Iron Deposit Surface Soil Inundation V Sparsely Ve ield Observat Surface Water I Vater Table Pres Saturation Pres Includes capilla	Crust (B4) s (B5) l Cracks (B6) //sible on Aerial Imgetated Concave stions: Present? Yes esent? Yes sent? ary fringe) Yes	Surface (B8)	Soils (C6) Stunted or Stress (LRR A) Other (Explain in Depth (inches): Depth (inches): Depth (inches):	Remarks) We previous inspections	Raised Ant Mour Frost-Heave Hur	nds (D6) (LRR A) nmocks (D7)
Algal Mat or Iron Deposit Surface Soil Inundation V Sparsely Ve Sield Observat Surface Water I Vater Table Presincludes capilla	Crust (B4) s (B5) l Cracks (B6) //sible on Aerial Imgetated Concave stions: Present? Yes esent? Yes sent? ary fringe) Yes	Surface (B8)	Soils (C6) Stunted or Stress (LRR A) Other (Explain in Depth (inches): Depth (inches): Depth (inches):	sed Plants (D1) Remarks) We	Raised Ant Mour Frost-Heave Hur	nds (D6) (LRR A) nmocks (D7)

		wountains, Valleys, and Coast Region
Project/Site: HAA Ranch	city/county Siski Unu Co	8/22/2011
Application ovince.	Contact C. D. C.	
investigator(s).	Section Township Pages 1	
Landform (hillslope, terrace, etc.):	A CE Cost rollet (consessed assessed	1314 15W SECT 1, 2+3
Subregion (LRR): MLRA 22B	int: -/ 20 381 0831 111 (x, none): Slope (%):
Soil Map Unit Name:153 QC	Lat: -122.381.983 Long: 41.0	9.3853 Datum: NAD 63
Are climatic / hydrologic conditions on the site ty	12/16 511+ 10am	NWI classification: PEMC
Are Vegetation Soil or Hydrolo	No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrolo	ary 10 significantly disturbed? Are	"Normal Circumstances" present? Yes X No
		(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach si	te map showing sampling poin	t locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes		
Wetland Hydrology Present?	No ls the Sampled Area w	ithin a Wetland? Yes No
Remarks:	110 7	
I remaine.		
VEGETATION – Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Rlot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: 10 (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)	1000 0076	Prevalence Index worksheet:
1		
2.		
3.		OBL species x1 =
4.		FACW species x2 =
5.		FAC species 40 x3 = 120
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:) 7	Total Cover	UPL species <u>30</u> x 5 = /50
1. Pseudoreanen a spicate	20 1 11PI	Column Totals: 30 (A) 230(B)
Poa pratensis	40 V FAC	
	40 Y FAC	Prevalence Index = B/A = 3.6
		Hydrophytic Vegetation Indicators:
	SECTION TO SECTION	P6.
	Since profit in h	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50% 3 - Prevalence Index is <3.01
•		The state of the s
•		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
0		5 - Wetland Non-Vascular Plants ¹
1,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Problematic Hydrophytic Vegetation¹ (Explain)
	- Total Cours	
/oody Vine Stratum (Plot size:)	= Total Cover	Indicators of hydric soil and wetland hydrology must
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	-	be present, unless disturbed or problematic.
	1	to the second of the second
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation
	1	Present? Yes No X
emarks:		

		1

DIL			ইয়ারগুলিও ব্যার্থ	<u> 4 </u>
Profile Description: (Describe to the dep	th needed to document the ind	licator or confirm	the absence of indicators.)	
Depth Matrix (inches) Color (moist) %	Redox Feat Color (moist) %	tures Li	c² / Texture	Remarks
	Color (Holac) //		Loam	
1-18 104R3/2100				
			·	
			_	
	0			
				
				<u> </u>
			ains. ² Location: PL=Pore I	ining M=Matrix
Type: C=Concentration, D=Depletion, RM:	=Reduced Matrix, CS=Covered o	or Coated Sand Gr	<u> </u>	
Hydric Soil Indicators: (Applicable to all	LRRs, unless otherwise note	d.)	Indicators for Problematic	c Hydric Solls":
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (T	F2)
Black Histic (A3)	Loamy Mucky Mineral (F1) ((except MLRA 1)	Very Shallow Dark Surf	ace (IFT2)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Rema	irks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		و با د ماند با الاستان و ا	tin vegetation and
Thick Dark Surface (A12)	Redox Dark Surface (F6)		³ Indicators of hydrophyl wetland hydrology mus	uc vegetation and the present
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		unless disturbed or pro	
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	T	GIROGO CIONAIDOO DI PIO	
strictive Layer (if present):				Δ
• • •		Hydric Soil Pre	sent? Yes	No /
Type:	······································	,		
Depth (inches):		<u> </u>		 v
DROLOGY		-		
etland Hydrology Indicators:			O Indicator (O or m	ore required)
imary Indicators (minimum of one required;	check all that apply)	DO) (Secondary Indicators (2 or m Water-Stained Leaves (E	O MIRA 1. 2.
	Water-Stained Leaves (4A, and 4B)) (mE(01) =1
Surface Water (A1)	MLRA 1, 2, 4A, and 4B	" .	Drainage Patterns (B10)	
High Water Table (A2)	Salt Crust (B11) Aquatic Invertebrates (E	313)	Dry-Season Water Table	(C2)
Saturation (A3)	Hydrogen Sulfide Odor	(C1)	Saturation Visible on Aer	rial Imagery (C9)
Water Marks (B1)	Oxidized Rhizospheres	along Living		
Sediment Deposits (B2)	Roots (C3)		Geomorphic Position (D2	2)
Drift Deposits (B3)	Presence of Reduced In	ron (C4)	Shallow Aquitard (D3)	
_ · · · · · · · · · · · · · · · · · · ·	Recent Iron Reduction i			
m = t =			FAC-Neutral Test (D5)	
	Soils (C6)			
Algal Mat or Crust (B4)	Stunted or Stressed Pla	ants (D1)		\
	Stunted or Stressed Pla (LRR A)		Raised Ant Mounds (D6)	
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Stunted or Stressed Pla			
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Stunted or Stressed Pla (LRR A) Other (Explain in Rema		Raised Ant Mounds (D6)	
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Stunted or Stressed Pla (LRR A) Other (Explain in Rema		Raised Ant Mounds (D6)	
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6)	Stunted or Stressed Pla (LRR A) Other (Explain in Rema		Raised Ant Mounds (D6)	
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) ield Observations:	Stunted or Stressed Pla (LRR A) Other (Explain in Rema		Raised Ant Mounds (D6)	
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) eld Observations: urface Water Present? Yes No	Stunted or Stressed Pla (LRR A) Other (Explain in Rema	irks)	Raised Ant Mounds (D6) Frost-Heave Hummocks	(D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) ield Observations: urface Water Present? Yes No //ater Table Present? Yes No	Stunted or Stressed Pla (LRR A) Other (Explain in Rema	irks)	Raised Ant Mounds (D6) Frost-Heave Hummocks	(D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) ield Observations: urface Water Present? Yes No //ater Table Present? Yes No aturation Present?	Stunted or Stressed Pla (LRR A) Other (Explain in Rema	irks)	Raised Ant Mounds (D6) Frost-Heave Hummocks	(D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) ield Observations: urface Water Present? Yes No /ater Table Present? Yes No aturation Present? Yes No aturation Present? Yes No	Stunted or Stressed Pla (LRR A) Other (Explain in Rema 3) Depth (Inches): Depth (inches):	Wetland	Raised Ant Mounds (D6) Frost-Heave Hummocks Hydrology Present? Ye	(D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) eld Observations: urface Water Present? Yes No vater Table Present? Yes No aturation Present?	Stunted or Stressed Pla (LRR A) Other (Explain in Rema 3) Depth (Inches): Depth (inches):	Wetland	Raised Ant Mounds (D6) Frost-Heave Hummocks Hydrology Present? Ye	(D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6 leid Observations: urface Water Present? Yes No later Table Present? Yes No aturation Present? Yes No aturation Present? Yes No active Recorded Data (stream gauge, monit	Stunted or Stressed Pla (LRR A) Other (Explain in Rema 3) Depth (Inches): Depth (inches):	Wetland	Raised Ant Mounds (D6) Frost-Heave Hummocks Hydrology Present? Ye	(D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6 leid Observations: urface Water Present? Yes No later Table Present? Yes No aturation Present? Yes No aturation Present? Yes No active Recorded Data (stream gauge, monit	Stunted or Stressed Pla (LRR A) Other (Explain in Rema 3) Depth (inches): Depth (inches): Depth (inches): toring well, aerial photos, previous	Wetland	Raised Ant Mounds (D6) Frost-Heave Hummocks Hydrology Present? Ye available:	(D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6 eld Observations: urface Water Present? Yes No ater Table Present? Yes No ater Table Present? Yes No aturation Present? Includes capillary fringe) Yes No acribe Recorded Data (stream gauge, monit	Stunted or Stressed Pla (LRR A) Other (Explain in Rema 3) Depth (inches): Depth (inches): Depth (inches): toring well, aerial photos, previous	Wetland	Raised Ant Mounds (D6) Frost-Heave Hummocks Hydrology Present? Ye available:	(D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B6) ield Observations: urface Water Present? Yes No //ater Table Present? Yes No aturation Present?	Stunted or Stressed Pla (LRR A) Other (Explain in Rema 3) Depth (inches): Depth (inches): Depth (inches): toring well, aerial photos, previous	Wetland	Raised Ant Mounds (D6) Frost-Heave Hummocks Hydrology Present? Ye	(D7)

^	The state of the stering	Hountains, valleys, and Coast Region
Project/Site: HAV+RANCH Applicant/Owner: Hav+ Ranch Investigator(s): And Have Ranch	Siskilland P	8/22/2-4-
Applicant/Owner: Hart Ranch	_ State CA	Sampling Date: 0/25/2010
Applicant/Owner: Hart Ranch Investigator(s): Angula Rance Landform (hillslope, terrace, etc.):	Section Township Pensag	ling Point: T40
Landform (hillslope, terrace, etc.):	A f Coal rollef (consess	ex, none): Slope (%):
		Slope (%): Datum: NAN 3
Soil Map Unit Name: 189 Med for	CA COULOANS COOL	Cloud! Datum: NAI) (3
Are climatic / hydrologic conditions on the site ty	mical for this time of year? Yes V	NWI classification: WA
Are Vegetation , Soil , or Hydrok	oov No significantly disturbed?	"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrok	pay No naturally problematic?	Normal Circumstances present? Yes No
		(if needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach si	te map showing sampling poin	t locations, transects, important features, et
15-14-0-25		* _
Wetland Hydrology Present? Yes Yes	No Is the Sampled Area w	ithin a Wetland? Yes No
Remarks:		
	200	
	pasture	
VEGETATION – Use scientific names	of plants.	
Tron Stratum (Blad alam	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
		Total Number of Dominant
3,		Species Across All Strata: (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		(AB)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Describerate to the state of th
, Tot size.		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species x1 =
		FACW species x 2 =
		FAC species x 3 =
		FACU species 80 x 4 = 320
erb Stratum (Plot size: 102)	= Total Cover	UPL species x 5 =
Elymus elympides	S) V FACU	Column Totals: (A) 370 (B)
	- NO THUM	
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	শ কটোটো জিলা কথাৰেলী	₹*:
	As another a	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50% 3 - Prevalence index is ≤3.01
	ALC: N	4 - Morphological Adaptations ¹ (Provide supporting
		data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants¹
	75 76 45 65	Problematic Hydrophytic Vegetation¹ (Explain)
_	8D = Total Cover	¹ Indicators of hydric soil and wetland hydrology must
ody Vine Stratum (Plot size)		be present, unless disturbed or problematic.
	2 1.00 Br	in the pass of the
1	= Total Cover	Hydrophytic Vegetation
Bare Ground in Herb Stratum		Present? Yes No
marks:		
		į
		<u> </u>

SOIL		<u></u>	ইট্রোধীটো চলাগ্র	449
Profile Description: (Describe to th	e depth needed to document the indicate	or or confirm the	bsence of indicators.	`
Depth Matrix	Redox Features	<u></u>		
DODU	% Color (moist) %' T	'ype' Loc ²	Texture	Remarks
(11101100)			Olan lamas	
0-18 2,5424/2100	N		Claylows	
15 01-3/1-10-				
		 _		
	 _			
 -				
				
				
4	Did Deduced Metric CS=Covered or Co	nated Sand Grains	² Location: PL=Pore	Lining, M=Matrix.
'Type: C=Concentration, D=Depletion	n, RM=Reduced Matrix, CS=Covered or Co	Jaled Darid Clairis.	200000111121111	
		lne	licators for Problemat	ic Hydric Solls³:
Hydric Soil Indicators: (Applicable	e to all LRRs, unless otherwise noted.)	1117		
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10)	
	Stripped Matrix (S6)	20.5	Red Parent Material (1	F2)
Histic Epipedon (A2)	Suipped Wattix (30)	ont MI DA 4)	Very Shallow Dark Sui	face (TF12)
Black Histic (A3)	Loamy Mucky Mineral (F1) (exc	ehrinitika ()		
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	_	Other (Explain in Rem	airo)
Depleted Below Dark Surface (A	11) Depleted Matrix (F3)			
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophy	tic vegetation and
	Depleted Dark Surface (F7)		wetland hydrology mus	st be present.
Sandy Mucky Mineral (S1)			unless disturbed or pro	hlematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or pro	
Restrictive Layer (if present):				
(estrictive rayer (ii biaseiit).		ydric Soll Present	? Yes	No V
Type:	n	yarıc son Fresent	100	
Depth (inches):				
Depart (money):				
emarks:				
	1100 200	0 8 8 1 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	40/2	
		dicate		
YDROLOGY			W2	
Wetland Hydrology Indicators:				
Wetland Hydrology Indicators:	puired: check all that apply)	Sec	ondary Indicators (2 or r	nore required)
Wetland Hydrology Indicators:	puired: check all that apply)	Sec	ondary Indicators (2 or r	nore required) B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one red	quired; check all that apply) Water-Stained Leaves (B9)	Sec	ondary Indicators (2 or r	nore required) B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one rec Surface Water (A1)	quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B)	Sec (except	ondary Indicators (2 or r Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one rec	quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Sec (except	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10	B9) (MLRA 1, 2,)
Wetland Hydrology Indicators: Primary Indicators (minimum of one rec Surface Water (A1) High Water Table (A2)	quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	(except	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl	B9) (MLRA 1, 2,) e (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one rec Surface Water (A1) High Water Table (A2) Saturation (A3)	quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	(except	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10	B9) (MLRA 1, 2,) e (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one rec Surface Water (A1) High Water Table (A2)	quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1	(except —	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl	B9) (MLRA 1, 2,) e (C2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one reconstruction Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor	(except	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Vetland Hydrology Indicators: Primary Indicators (minimum of one recommend of the second of the seco	Quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor	(except	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Vetland Hydrology Indicators: Primary Indicators (minimum of one recommend of the state of the s	Quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron	Sec (except —) — — — — — — — — — — — — — — — — —	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Vetland Hydrology Indicators: Primary Indicators (minimum of one reconstructions) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor	(except (except) ng Living (C4)	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3)	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Vetland Hydrology Indicators: Primary Indicators (minimum of one recomment	Quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron (Recent Iron Reduction in Ti	(except (except) ng Living (C4)	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Vetland Hydrology Indicators: Primary Indicators (minimum of one recommend of the second of the seco	wired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron (Recent Iron Reduction in Till Solls (C6)	(except (except) ng Living (C4)	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3)	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
Vetland Hydrology Indicators: Primary Indicators (minimum of one recommend of the second of the seco	wired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron (Recent Iron Reduction in Ti Solls (C6) Stunted or Stressed Plants	(except Sec	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5)	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9) (2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one reconstruction of the second of the	wuired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron Recent Iron Reduction in Ti Soils (C6) Stunted or Stressed Plants (LRR A)	(except Sec	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) orial Imagery (C9) (2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one reconstruction of the second of the	wired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron (Recent Iron Reduction in Ti Solls (C6) Stunted or Stressed Plants	(except Sec	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5)	B9) (MLRA 1, 2,) e (C2) orial Imagery (C9) (2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one reconstruction of the second of the	quired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron Recent Iron Reduction in Ti Soils (C6) Stunted or Stressed Plants (LRR A) Other (Explain in Remarks)	(except Sec	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) orial Imagery (C9) (2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one reconstruction of the control o	wired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron (Recent Iron Reduction in Tisolls (C6) Stunted or Stressed Plants (LRR A) Other (Explain in Remarks)	(except Sec	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) orial Imagery (C9) (2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one reconstruction of the second of the	wired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron (Recent Iron Reduction in Tisolls (C6) Stunted or Stressed Plants (LRR A) Other (Explain in Remarks)	(except Sec	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) orial Imagery (C9) (2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one reconstruction of the Primary Indicators (minimum of one reconstruction (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface	wired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron (Recent Iron Reduction in Tisolls (C6) Stunted or Stressed Plants (LRR A) Other (Explain in Remarks)	(except Sec	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) (2)
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Petiand Hydrology Indicators: Primary Indicators (minimum of one reconstruction of the property of the propert	wired; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Roots (C3) Presence of Reduced Iron (Recent Iron Reduction in Ti Soils (C6) Stunted or Stressed Plants (LRR A) Other (Explain in Remarks) y (B7) ce (B8) No Depth (inches): No Depth (inches):	(except Sec	ondary Indicators (2 or r Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6 Frost-Heave Hummock	B9) (MLRA 1, 2,) e (C2) erial imagery (C9) (2) (5) (LRR A) s (D7)

TELLAND DETERMINA	TION DATA FORM - Western	Mountains, Valleys, and Coast Region
4 . (1)	city/County: Siskiyou C	
Applicant/Owner: Hart Ranch	City/County: 213N1VULC	Sampling Date: 0/25/2010
A	State: CA Samp	
Landform (hillistope, terrace, etc.): + + + + + + + + + + + + + + + + + + +	Section, Township, Range:	45N, RSW Sect 1,2+3
		ex, none): Slope (%): 2
Soil Map Unit Name: 189 medfor	Color Cong:	Datum: NAI) 13
Are climatic / hydrologic conditions on the site type	pical for this time of years Van V	NWI classification:
Are Vegetation Soil or Hydrolo	ov No significantly disturbed?	"Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrolog	gy No naturally problematic?	Normal Circumstances present? Yes No
		(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach sit	e map showing sampling poin	t locations, transects, important features, etc.
Uturbio Coli Bassanto		
	No Is the Sampled Area w	ithin a Wetland? Yes No
Remarks:		
ditch		
CITCA		
VEGETATION - Use scientific names	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
2.		Total Number of Dominant
3.		Species Across Ali Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
D=-10-10-1-0-1-0-1-0-1-0-1-0-1-0-1-0-1-0-	= Total Cover	
Sapling/Shrub Stratum Plot size:)		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species x1 =
		FACW species x 2 =
		FAC species x 3 =
		FACU species x 4 =
lerb Stratum (Plot size: M)	= Total Cover	UPL species x 5 =
Processes the f		
		Prevalence index = B/A =
		the decords of the second
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	hear weeth to	2 - Dominance Test is >50%
	Market Comment	a Lotaletice IIIday is 2910
		4 - Morphological Adaptations' (Provide supporting)
)		data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹
	10 44 t 144	Problematic Hydrophytic Vegetation¹ (Explain)
The state of the s	= Total Cover	
oody Vine Stratum (Plot size:		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
- Vergen		process, usiness disturbed of problematic,
	A CONTRACTOR SAID	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
	Total O	Hydrophytic
Bare Ground in Herb Stratum	Total Ouvel	Vegetation
	. water	Present? Yes No No
marks:	veg lopen water Problements Problements A a	nt a
√NO.	veg in motion	charal abriedge sparsered in
7,0	ample a les	changlow earl con moon
	(1) 1 a	W MC TO THE MENT OF THE MENT O
		100

		446
SOIL		वेवा बाबाहरू देशों ।
Profile Description: (Describe to	the depth needed to document the indicator or confirm the absence	of indicators.)
DepthMatrix	Redox Features	
(inches) Color (moist)	76 COID! (Indiat) 70 1750	
0-18in 25 424/	190 548416 10 M SAN	duloam
0-18 14 012 10 10		70
		<u> </u>
		<u></u>
		
		
		
		
¹ Type: C=Concentration D=Denie	tion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Local	tion: PL≃Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applications)	ible to all LRRs, unless otherwise noted.) Indicators t	for Problematic Hydric Soils ³ :
		uck (A10)
Histosol (A1)	Stripped Matrix (S6) Red Pai	ent Material (TF2)
Histic Epipedon (A2)	Loamy Mucky Mineral (F1) (except MLRA 1) Very Sh	allow Dark Surface (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Other (E	xplain in Remarks)
		•
Depleted Below Dark Surface	Redox Dark Surface (F6)	ors of hydrophytic vegetation and
Thick Dark Surface (A12)	Depleted Dark Surface (F7) wetland	hydrology must be present,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless of	disturbed or problematic
Sandy Gleyed Matrix (54)	TREADY DEPICESIONS (1.0)	
to the three I are differences (it		
Restrictive Layer (if present):	Hydric Soil Present? Ye	s No
Type:	nyaric soil Plesent?	
Depth (inches):		
emarks:		
VDPOLOGY		
YDROLOGY Wetland Hydrology Indicators:		
Wetland Hydrology Indicators:		dicators (2 or more required)
Wetland Hydrology Indicators:	Water-Stained Leaves (B9) (except Water-Sta	sined Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Water-Stained Leaves (B9) (except 4A, and 4	Bined Leaves (B9) (MLRA 1, 2, B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Water-Stained Leaves (B9) (except 4A, and 4 Drainage	ained Leaves (B9) (MLRA 1, 2, IB) Pattems (B10)
Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Water-Stained Leaves (B9) (except 4A, and 4 Drainage Dry-Seas	ained Leaves (B9) (MLRA 1, 2, IB) Patterns (B10) on Water Table (C2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Water-Stained 4A, and 4 Drainage Dry-Seas	ained Leaves (B9) (MLRA 1, 2, IB) Pattems (B10)
Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Water-Sta 4A, and 4 Drainage Dry-Seas Saturation	ained Leaves (B9) (MLRA 1, 2, IB) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9)
Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Water-Stained 4A, and 4 Drainage Dry-Seas Saturation Saturation Geomorp	ained Leaves (B9) (MLRA 1, 2, IB) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9) hic Position (D2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Water-Stained 4A, and 4 Drainage Dry-Seas Saturation Saturation Geomorp	ained Leaves (B9) (MLRA 1, 2, IB) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (C9)
Vetland Hydrology Indicators: Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Water-Stained Hydrogen Dry-Seas Saturation Geomorp Shallow A	ained Leaves (B9) (MLRA 1, 2, IB) Patterns (B10) on Water Table (C2) In Visible on Aerial Imagery (C9) Phic Position (D2) Aquitard (D3)
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	- Trestern	Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch City/Co	ounty: Siski vou G	9. Sampling Date: 8/23/20110
Application of the state of the	Stote: (IA' C	Control Products and Control C
Investigator(s): Andréa Rabe Sec	ction, Township, Range:	46N REW SEEL 2 13
Landio Title (Title Co.). The second of the control of the contr	LOCAL relief (conseque conse	
Our rich cult issuite.	FINE IN FRANCE	All All along the authority
Are cirriatic / hydrologic conditions on the site typical for i	his time of year? Yes V No.	Of managed in Day 1
Are Vegetation Soil or Hydrology No	significantly disturbed?	"Normal Circumstance III was a second
Are Vegetation, Soil, or Hydrology NO	naturally problematic?	/If peopled combine present? Yes No
		The state of the s
SUMMARY OF FINDINGS – Attach site map Hydrophytic Vegetation Present? Yes No	Silowing sampling poin	t locations, transects, important features, el
Hydric Soil Present? Yes No	is the Sampled Area w	rithin a Wetland? Yes No
Remarks:		
	alfalfa-freld	
VEGETATION - Use scientific names of plan	nts.	
Tree Stratum (Plot size:) Abs	olute Dominant Indicator	Dominance Test worksheet:
	over Species? Status	Number of Dominant Species
1. 2. 3.		That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3		Species Across Ali Strata: (B)
4.		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		That Are OBL, FACW, or FAC: (A/B)
Canling/Church Ctrate on C. (Dl. tl	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence index worksheet:
1		Total % Cover of: Multiply by:
2		OBL species x1 =
<u> </u>		FACW species x 2 =
		FAC species x 3 =
		FACU species x4 =
orb Stratum . /Diet sies. 1.2	= Total Cover	UPL species 9D x5= 45D
erb Stratum (Plot size:	11 100	Column Totals: 90 (A) 4(C(B)
medicago sativa goo	4 UPC	Solution (A) _4(C(B)
		Prevalence index = B/A =
		Hydrophytic Vegetation Indicators:
	A STATE OF THE STA	1 - Rapid Test for Hydrophytic Vegetation
	Se 60 10 -864 18 4	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
		4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
	11 No. 14 No. 15	Problematic Hydrophytic Vegetation¹ (Explain)
90	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
cody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
		(1) (1) (2) (2)
	A regular of parts	A harmonia
\	= Total Cover	Hydrophytic Page 1
Bare Ground in Herb Stratum ID		
Bare Ground in Herb Stratum		Present? Yes No
Bare Ground in Herb Stratum D		

(L				- 4	ইয়নেগুনিলে ইংম	
Profile Description: (Describe	to the depth needed to	document the i	ndicator or co	nfirm the a	psence of indicators	14
Depth Matrix		Redox Fe	eatures	Loc²	Texture	Remarks
(inches) Color (moist)	% Color (m	oist) %	Type'	LOC	m. 4	Terriario
2-18 2,5424/2	.100				Clauloam	
7 8 913 115					7	-
						
					_	
-	_					
				-		
						
Type: C=Concentration, D=Dep	letion, RM=Reduced Ma	atrix, CS=Covered	d or Coated Sa	nd Grains.	² Location: PL=Por	e Lining, M=Matrix.
					icators for Problema	tic Hydric Soils ^{3,}
Hydric Soil Indicators: (Appli	cable to all LRRs, unie	ss otherwise no	ted.)	ind		ilic nyanc sons .
Histosol (A1)	Sandy R	Redox (S5)		_	2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped	l Matrix (S6)			Red Parent Material	
Black Histic (A3)	Loamy N	Mucky Mineral (F1	i) (except MLR	RA 1)	Very Shallow Dark St	
Hydrogen Sulfide (A4)		Gleyed Matrix (F2)			Other (Explain in Rer	marks)
Depleted Below Dark Surface	ce (A11) Deplete	d Matrix (F3)			_	
Thick Dark Surface (A12)	Redox D	ark Surface (F6)			3Indicators of hydropl	hytic vegetation and
Sandy Mucky Mineral (S1)		d Dark Surface (F			wetland hydrology mi	ust be present,
Sandy Gleyed Matrix (S4)	Redox D	Depressions (F8)			unless disturbed or p	roblematic
estrictive Layer (if present):						11
_			Hydric So	il Present?	Yes	NoX
Type: Depth (inches):			1		\	
Depth (Inches):						
marks:						
TOROLOGY						more required)
POROLOGY	ne required; check all tha	at apply)			ondary Indicators (2 or	more required)
TOROLOGY	Wat	er-Stained Leave:	s (B9) (except		Vater-Stained Leaves	more required) (B9) (MLRA 1, 2,
DROLOGY	Wat MLF	er-Stained Leave: RA 1, 2, 4A, and 4	s (B9) (except 4B)		Vater-Stained Leaves A, and 4B)	(B9) (MLRA 1, 2,
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of or	Wat MLF Sait	er-Stained Leave: RA 1, 2, 4A, and 4 Crust (B11)	4B)	-	Vater-Stained Leaves I A, and 4B) Drainage Patterns (B1	(B9) (MLRA 1, 2, 0)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2)	Wat MLF Sait Agu	er-Stained Leaver RA 1, 2, 4A, and 4 Crust (B11) atic Invertebrates	4B) (B13)		Vater-Stained Leaves IA, and 4B) Drainage Patterns (B1 Dry-Season Water Tab	(B9) (MLRA 1, 2, 0) ble (C2)
PROLOGY Vetland Hydrology Indicators: Verlimary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3)	Wat MLF Salt Aqu Hyd	er-Stained Leaver AA 1, 2, 4A, and 4 Crust (B11) atic invertebrates rogen Sulfide Ode	4B) (B13) or (C1)		Vater-Stained Leaves I A, and 4B) Drainage Patterns (B1	(B9) (MLRA 1, 2, 0) ble (C2)
TOROLOGY Tetland Hydrology Indicators: Timary Indicators (minimum of or Surface Water (A1) High Water Table (A2)	Wat MLF Salt Aqu Hyd Oxid	er-Stained Leaver A 1, 2, 4A, and 4 Crust (B11) atic invertebrates rogen Sulfide Ode dized Rhizosphere	4B) (B13) or (C1)		Vater-Stained Leaves IA, and 4B) Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A	(B9) (MLRA 1, 2, 0) ole (C2) Aerial Imagery (C9)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3)	Wat MLF Salt Aqu Hyd Oxic	er-Stained Leaver RA 1, 2, 4A, and 4 Crust (B11) atic Invertebrates rogen Sulfide Ode dized Rhizosphere ts (C3)	4B) (B13) or (C1) es along Living		Vater-Stained Leaves IA, and 4B) Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ((B9) (MLRA 1, 2, 0) ole (C2) Aerial Imagery (C9) D2)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Wat MLF Sait Aqu Hyd Oxio	er-Stained Leaver RA 1, 2, 4A, and 4 Crust (B11) atic invertebrates rogen Sulfide Odd dized Rhizosphere ts (C3) sence of Reduced	4B) (B13) or (C1) es along Living		Vater-Stained Leaves IA, and 4B) Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A	(B9) (MLRA 1, 2, 0) ole (C2) Aerial Imagery (C9) D2)
POROLOGY Settand Hydrology Indicators: Simary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Wat MLF Salt Aqu Hyd Oxio Roo Prei	er-Stained Leaver A 1, 2, 4A, and 4 Crust (B11) atic Invertebrates rogen Sulfide Odd dized Rhizosphere ats (C3) sence of Reduced ent Iron Reductio	4B) (B13) or (C1) es along Living		Vater-Stained Leaves IA, and 4B) Drainage Patterns (B1 Dry-Season Water Tale Saturation Visible on A Geomorphic Position (Shallow Aquitard (D3)	(B9) (MLRA 1, 2, 0) ole (C2) Aerial Imagery (C9) D2)
POROLOGY Settand Hydrology Indicators: Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Wat MLF Sait Aqu Hyd Oxio Roo Pres Rec Soil	er-Stained Leaver RA 1, 2, 4A, and 4 Crust (B11) atic invertebrates rogen Sulfide Ode dized Rhizosphere ats (C3) sence of Reduced ent Iron Reductio s (C6)	4B) (B13) or (C1) es along Living d Iron (C4) in in Tilled		Vater-Stained Leaves IA, and 4B) Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ((B9) (MLRA 1, 2, 0) ole (C2) Aerial Imagery (C9) D2)
POROLOGY Settand Hydrology Indicators: Simary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Wat MLF Sait Aqu Hyd Oxio Roo Pres Rec Soil	er-Stained Leaver RA 1, 2, 4A, and 4 Crust (B11) atic Invertebrates rogen Sulfide Ode dized Rhizosphere ats (C3) sence of Reduced sent Iron Reductio s (C6) ated or Stressed F	4B) (B13) or (C1) es along Living d Iron (C4) in in Tilled		Vater-Stained Leaves (A, and 4B) Drainage Patterns (B1- Dry-Season Water Tal Saturation Visible on A Geomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5)	(B9) (MLRA 1, 2, 0) ole (C2) Aerial Imagery (C9) D2)
PROLOGY etland Hydrology Indicators: imary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Wat MLF Sait Aqu Hyd Oxic Roo Pres Reci Soil	er-Stained Leaver RA 1, 2, 4A, and 4 Crust (B11) atic invertebrates rogen Sulfide Ode dized Rhizosphere ats (C3) sence of Reduced sent Iron Reductio s (C6) nted or Stressed f RA)	4B) (B13) or (C1) es along Living d Iron (C4) en in Tilled Plants (D1)		Vater-Stained Leaves IA, and 4B) Drainage Patterns (B1- Dry-Season Water Tale Saturation Visible on A Geomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (E	(B9) (MLRA 1, 2, 0) ole (C2) verial Imagery (C9) D2)
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PROLOGY Petland Hydrology Indicators: rimary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Im Sparsely Vegetated Concave Ield Observations: urface Water Present? Yes	Wat MLF Sait Aqu Hyd Oxic Roo Pres Reci Soil Sturi (LR Oth Surface (B8)	er-Stained Leaver RA 1, 2, 4A, and 4 Crust (B11) atic Invertebrates rogen Sulfide Ode dized Rhizosphere ats (C3) sence of Reduced ent Iron Reductio s (C6) nted or Stressed F RA) er (Explain in Rer	4B) or (C1) es along Living d Iron (C4) en in Tilled Plants (D1) marks)		Vater-Stained Leaves IA, and 4B) Drainage Patterns (B1- Dry-Season Water Tale Saturation Visible on A Geomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (E Frost-Heave Hummoc	(B9) (MLRA 1, 2, 0) ole (C2) verial Imagery (C9) D2)
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Parks: Wat MLF Sait Aqu Hyd Oxic Roo Pres Rec Soil Stul (LR Oth No Depth Depth No Depth	er-Stained Leaver RA 1, 2, 4A, and 4 Crust (B11) atic invertebrates rogen Sulfide Odd dized Rhizosphere dized Rhizosphere dized Rhizosphere dized Rhizosphere dized of Reduced ent Iron Reductio s (C6) nted or Stressed F RA) er (Explain in Rer (inches): (inches):	4B) i (B13) or (C1) es along Living d Iron (C4) en in Tilled Plants (D1) marks) We	etland Hyd	Vater-Stained Leaves (A, and 4B) Drainage Patterns (B1- Dry-Season Water Tals Saturation Visible on A Geomorphic Position (Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummoc	(B9) (MLRA 1, 2, 0) ole (C2) verial Imagery (C9) D2) 06) (LRR A) ks (D7)	
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Project/Site: HATRANCA City/County: Siski You Capplicant/Owner: Hart Ranch State: CA Sam Investigator(s): Section, Township, Range: Landform (hillslope, terrace, etc.): Section (hillslope, etc.): Section (hillslope, etc.): Secti	Mountains, Valleys, and Coast Region
Applicant/Owner: Hart Kanch	0. Sampling Date: 8/23/2010
State, Sam	ipling Point:
Investigator(s): Marka Kaloe Section, Township, Range:	45N. RSW SUF12+2
	TALK AT E-MEANS MAIN NA
Construct Citit Nation 125 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ABAH ata a sida
Are chimatic involving it conditions on the site typical for this time of year? Yes V N	io (if no explain in Downston)
Are Vegetation, Soil, or Hydrology No significantly disturbed? Are	= "Normal Circumstances" presents. Van V
Are Vegetation , Soil , or Hydrology NO naturally problematic?	(If peeded explain expression 1 to 100
SUMMARY OF FINDINGS – Attach site map showing sampling point Hydrophytic Vegetation Present? Yes No	
	in locations, transects, important features, el
	within a Wetland? Yes No
Remarks:	
alfalfa field	d
VEGETATION - Use scientific names of plants.	
Tree Stratum (Plot size:) Absolute Dominant Indicato Species? Status	· ·
1, (Plot See:)	Trainbor of Bothinarit Opecies
2.	That Are OBL, FACW, or FAC: (A)
	Total Number of Dominant
3	Species Across All Strata: (B)
*	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	(AVB)
= Total Cover	
Sapling/Shrub Stratum (Plot size:)	Prevalence Index worksheet:
I	Total % Cover of: Multiply by:
2	OBL species x 1 =
3	FACW species x2=
	FAC species x3 =
= Total Cover	FACU species x 4 =
lerb Stratum (Plot size: M)	UPL species (2) x 5 = 400
mad areas and no 80 U u.a.	Column Totals: (A) (LOO(B)
THE TOTAL OF THE PROPERTY OF T	
	Prevalence Index = B/A =
	Hydrophytic Vegetation Indicators:
	1 - Rapid Test for Hydrophytic Vegetation
	2 - Dominance Test is >50%
	3 - Prevalence index is ≤3.01
The second secon	4 - Morphological Adaptations ¹ (Provide supporting
	data in Remarks or on a separate sheet)
),	5 - Wetland Non-Vascular Plants ¹
The state of the s	Problematic Hydrophytic Vegetation¹ (Explain)
	7 .
= lotal Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
cody Vine Stratum (Piotaize:)	
oody Vine Stratum (Plot size:)	ATT /
oody Vine Stratum (Plot size:)	
oody Vine Stratum (Plot size:)	to we have
cody Vine Stratum (Plot size:) = Total Cover	Hydrophytic Vegetation
oody Vine Stratum (Plot size:)	Hydrophytic
Bare Ground in Herb Stratum 20	Hydrophytic Vegetation
cody Vine Stratum (Plot size:) = Total Cover	Hydrophytic Vegetation
Bare Ground in Herb Stratum 20	Hydrophytic Vegetation

Profile Description: (Describe to the depth Depth (inches) Color (moist) % D-18 26542 700	Redo	he indicator or cont ox Features 7 Type	Loc ² Texture	
(inches) Color (moist) %			Loc ² Texture	
				Remarks
				_
				
				<u>-</u>
		:		
				
Type: C=Concentration, D=Depletion, RM=F	Paducad Matrix CS=Cov	rered or Coated Sans	Grains. ² Location: PL=Pore Lin	ning, M=Matrix.
······································			Indicators for Problematic I	
lydric Soll Indicators: (Applicable to all I		notea.)		Tyonic Conc.
_ Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10) Red Parent Material (TF2	1
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral	(F1) (eveent MI PA		; ce (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Mucky Mineral		Other (Explain in Remark	s)
Hydrogen Sumde (A4) Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	(· -/		
Thick Dark Surface (A12)	Redox Dark Surface (F6)	3Indicators of hydrophytic	vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface	e (F7)	wetland hydrology must b	e present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F	-8)	unless disturbed or proble	ematic
relative 1 every (if propent):				V
strictive Layer (if present):		Hydric Soil	Present? Yes N	lo X
Type:		- 11,011.00011		
arks:	*	- '		
DROLOGY				
ntland Hydrology Indicators: mary Indicators (minimum of one required; c	check all that apply)		Secondary Indicators (2 or mor	re required)
mary moleculors (minimises) of one regarded to	Water-Stained Lea	aves (B9) (except	Water-Stained Leaves (B9)) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, ai		4A, and 4B)	
High Water Table (A2)	Salt Crust (B11)		Drainage Patterns (B10) Dry-Season Water Table (6)	C2)
Saturation (A3)	Aquatic Invertebra	ates (B13)	Saturation Visible on Aeria	uz) I Imagery (C9)
Water Marks (B1)	Hydrogen Sulfide	heres along Living	Saturation Visible on Monta	i iiilagui, (uu,
Sediment Deposits (B2)	Roots (C3)	Heres along Firms	Geomorphic Position (D2)	
Drift Deposits (B3)	Presence of Redu	uced Iron (C4)	Shallow Aquitard (D3)	
Sint Deposits (DO)	Recent Iron Redu		_	
Algal Mat or Crust (B4)	Soils (C6)		FAC-Neutral Test (D5)	
_	Stunted or Stress	ed Plants (D1)	Raised Ant Mounds (D6) (I	RR A
Iron Deposits (B5)	(LRR A)	Domarks\	Frost-Heave Hummocks (I	
District Pail Carelle (DC)	Other (Explain in	remarks)	- 100th leave) familious (t	;
Surface Soil Cracks (B6)				
Inundation Visible on Aerial Imagery (B7)				
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	l			
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	/			
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) ald Observations:	Depth (inches):			\
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) ald Observations: rface Water Present? Yes No yeter Table Present? Yes No yeter Table Present?	/	Wetl	land Hydrology Present? Yes	No >
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) eld Observations: urface Water Present? Yes No No Naturation Present?	Depth (inches):	Wetl	land Hydrology Present? Yes	No >
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) eld Observations: urface Water Present? Yes No ater Table Present? Yes No aturation Present? ucludes capillary fringe) Yes No	Depth (inches): Depth (inches): Depth (inches):			No >
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) ald Observations: Inface Water Present? Yes No	Depth (inches): Depth (inches): Depth (inches):			No >
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Id Observations: rface Water Present? Yes No	Depth (inches): Depth (inches): Depth (inches):			No >
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Id Observations: fface Water Present? Yes No ster Table Present? Yes No sturation Present? cludes capillary fringe) Yes No scribe Recorded Data (stream gauge, monitor)	Depth (inches): Depth (inches): Depth (inches):			No >
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Id Observations: fface Water Present? Yes No	Depth (inches): Depth (inches): Depth (inches):			No >

^		Mountains, Valleys, and Coast Region
Project/Site: Hart Kanch	Sieking D	8/22/24
Applicant/Owner: Hart Ranch Investigator(s): Muka Kabe Landform (hillstone terrace etc.): + + + + + + + + + + + + + + + + + + +	City/County: Stantage	9. Sampling Date: 8/23/2016
Investigator(s): Andrea Kri no	Section Township Dance	ling Point: 455
Subregion (LRR): MLRA 22B	Lucai relier (concave, conve	ex, none): Slope (%): 2
Soil Map Unit Name:	tat. [a.a., 57:14] Stong: 11.	· · · · · · · · · · · · · · · · · · ·
Are climatic / hydrologic conditions on the site	twoical for this time of year? Yes V	NWI classification: PEML
Are Vegetation, Soil, or Hydi	rology ND significantly district and A	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydi	1000 ND naturally problematics	"Normal Circumstances" present? Yes X No
		(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach	site map showing sampling poin	t locations, transects, important features, etc.
	_ '''' /	•
Hydric Soil Present? Yes Yes Yes	No is the Sampled Area w	ithin a Wetland? Yes No No
Remarks:		
ditch		
WITEN		
VEGETATION - Use scientific name	es of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Rlot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
2.		Total Number of Dominant
3.		Species Across All Strata:(B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	
		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x 1 =
3.		FACW species x 2 =
4		FAC species x3 =
V		FACU species x 4 =
Herb Stratum (Plot size: \M2)	= Total Cover	UPL species x 5 =
1.		Column Totals: (A) (B)
2.		
3.		Prevalence index = B/A =
4.		Hydrophytic Vegetation Indicators:
5.	s and the manager	to 1
6.		1 - Rapid Test for Hydrophytic Vegetation
7.	the same are the same	2 - Dominance Test is >50%
8.	9.546	Trevelence much is 53.0
9.		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
10.		5 - Wetland Non-Vascular Plants ¹
11.	7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
1.		
2.	3 1 4 4 5 5 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Abeleonius de
	= Total Cover	Hydrophytic
% Bare Ground in Herb Stratum		Present? Yes No
	1 0*	401
Remarks:	no veg/openwater	The same said
	100/04 shler	yes champted sever a
	US NO JONES	year and and
	1,	MY 16(N) 1

COLL	45b
SOIL (Beesile to	the depth needed to document the indicator or confirm the absence of indicators.)
	Redox Features
Depth Matrix	% Color (mojet) % Type Loc Texture Remarks
(inches) Color (moist)	76 COOT (THOUGH) 70 Types
D-6 254R4/2	90 542416 10 M Sondy 10am
	6101110000
6-18 2:3414/2	100
¹ Type: C=Concentration, D=Deple	etion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
	able to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :
myaric soil indicators: (Applica	0 March (A40)
Histosol (A1)	Sandy Redox (S5) 2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6) Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2) Other (Explain in Remarks)
Depleted Below Dark Surface	Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6)
Thick Dark Surface (A12)	Depleted Dark Surface (F7) Wetland hydrology must be present,
Sandy Mucky Mineral (S1)	
Sandy Gleyed Matrix (S4)	Redox Depressions (F8) unless disturbed or problematic
Restrictive Layer (if present):	
	Hydric Soil Present? Yes No No
Type:	
Depth (inches):	
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	
Wetland Hydrology Indicators:	required: check all that apply) Secondary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one	70001001 CITOUR CALL DA 4 B
Primary Indicators (minimum of one	Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
Primary Indicators (minimum of one Surface Water (A1)	Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, MLRA 1, 2, 4A, and 4B)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Primary Indicators (minimum of one Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain In Remarks) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Image	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Image	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imag	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Images Sparsely Vegetated Concave Surfield Observations:	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Images Sparsely Vegetated Concave Surface Water Present? Yes	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) No Depth (inches):
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Images Sparsely Vegetated Concave Surface Water Present? Yes Water Table Present?	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surface Water Present? Water Table Present? Yes Saturation Present? (includes capillary fringe) Ves Describe Recorded Data (stream gau	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (inches): No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Facomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No Depth (inches):
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Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gau	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) No Depth (inches): No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Facomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No Depth (inches):
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	TION DATA FORM - Western	
Project/Site: Havt Kanch	city/county: Siski Vou C	Sampling Date: 8/23/2010
Applicant/Owner: Hart Ranch Investigator(s): Andrea Rance Landform (hillstone terrors etc.): Andrea	State: CA Samp	ling Point:
Investigator(s): Movea Kabe	Section, Township, Range:	45N, R5W Sect 1,2+3
Con map contraditio.		Ana/I close Gentles
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes X No	(If no, explain in Remarks.)
Are Vegetation , Soil or Hydrolog	Significantly disturbed? Are	"Normal Circumstances" present? Yes X No
		(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site	e mą <u>p</u> showing sampling poin	t locations, transects, important features, e
	MOLALA I	
	No Sis the Sampled Area w	ithin a Wetland? Yes No X
Remarks:		
	0/0 /0 /	. A.1
	Uit alta t	i evo.
VEGETATION - Use scientific names	- Continued	
VEGETATION - Use scientific names		
Tree Stratum (Plot size:)	Absolute Dominant Indicator <u>% Cover Species?</u> Status	
1.	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
Confine (Charle Cont. a) (Dist.)	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
2		Total % Cover of: Multiply by:
3.		OBL species x 1 =
		FACW species x 2 = FAC species x 3 =
S		
	= Total Cover	FACU species
lerb Stratum (Plot size:	0 - 4 - 0 -01	
- Transacado Science	4D 4 VPC	
		Prevalence Index = B/A =
		Madroub, die Verentellen bei der
	entition of the	Hydrophytic Vegetation Indicators:
	10 12 PAPE .	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50% 3 - Prevalence Index is ≤3,01
	1. 医骶鼻性性	4 - Morphological Adaptations ¹ (Provide supporting
		data in Remarks or on a separate sheet)
)		5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation ¹ (Explain)
oody Vine Stratum (Plot size:	= Total Cover	Indicators of hydric soil and wetland hydrology must
)	1	be present, unless disturbed or problematic.
	gradus states	美数 等。
12	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum		Vegetation Present? Yes No
	1	NO
marks:		

OIL			इस्तार्थान्य निर्मानी
Profile Description: (Describe to the	depth needed to document the	indicator or confi	irm the absence of indicators.)
Depth Matrix	Redox F	-eatures	
(inches) Color (moist) /, %	Color (moist) %	Type ¹	1 1000
D-16 a.5 YEYIND	(A)		clauldam
	<u> </u>		
Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covere	ed or Coated Sand	Grains. ² Location: PL=Pore Lining, M=Matrix.
			Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: (Applicable		,,	
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10) Red Parent Material (TF2)
Histic Epipedon (A2)	Stripped Matrix (S6)	1) (aveant lift DA	
Black Histic (A3)	Loamy Mucky Mineral (F Loamy Gleyed Matrix (F2		Other (Explain in Remarks)
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A1)		£)	Other (Explain in Normania)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	1	⁸ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F	, F7)	wetland hydrology must be present,
Sandy Middley Minteral (S1) Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or problematic
Odinay Clayed Median (C 1)			
estrictive Layer (if present):			N.
_		Hydric Soil I	Present? Yes NoV
Depth (inches):			
		<u> </u>	
narks:			
			1 in minus 14
		TON	oditators
			<i>y</i>
DROLOGY			
etland Hydrology Indicators:			
rimary Indicators (minimum of one requ	ired; check all that apply)		Secondary Indicators (2 or more required)
	Water-Stained Leave	s (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, and	4B)	4A, and 4B) Drainage Patterns (B10)
High Water Table (A2)	Salt Crust (B11)	- /D42\	Dry-Season Water Table (C2)
Saturation (A3)	Aquatic Invertebrates Hydrogen Sulfide Od	5 (D 13)	Saturation Visible on Aerial Imagery (C9)
Water Marks (B1)	Oxidized Rhizospher		Outor district violate of the state of the s
Sediment Deposits (B2)	Roots (C3)	PO BIVING FIAING	Geomorphic Position (D2)
Drift Deposits (B3)	Presence of Reduced	d Iron (C4)	Shallow Aquitard (D3)
Dint Deposits (DO)	Recent Iron Reduction		
Algal Mat or Crust (B4)	Soils (C6)		FAC-Neutral Test (D5)
,g , (- ·/	Stunted or Stressed	Plants (D1)	
Iron Deposits (B5)	(LRR A)		Raised Ant Mounds (D6) (LRR A)
Surface Soil Cracks (B6)	Other (Explain in Rer	marks)	Frost-Heave Hummocks (D7)
Inundation Visible on Aerial Imagery	(87)		
Sparsely Vegetated Concave Surface	a (B8)		
- 1-1 O b	V)	}	
	No. Depth (inches):	141-41.	and Hydrology Present? Yes No
urface Water Present? Yes			BIR HARIOTORAL LIBRARIES 100 100
urface Water Present? Yes	No Depth (inches):	******	
/ater Table Present? Yesaturation Present?	No Depth (inches):		
urface Water Present? Yes /ater Table Present? Yes aturation Present? ncludes capillary fringe) Yes	No Depth (inches):		if available
urface Water Present? Yes	No Depth (inches):		if available:
urface Water Present? Yes /ater Table Present? Yes aturation Present? ncludes capillary fringe) Yes	No Depth (inches):		, if available:
urface Water Present? Yes /ater Table Present? Yes aturation Present? ncludes capillary fringe) Yes scribe Recorded Data (stream gauge,	No Depth (inches):		if available:
urface Water Present? Yes /ater Table Present? Yes aturation Present? ncludes capillary fringe) Yes	No Depth (inches): No Depth (inches): monitoring well, aerial photos, prev	vious inspections),	
urface Water Present? Yes vater Table Present? Yes attraction Present? ncludes capillary fringe) Yes scribe Recorded Data (stream gauge, to	No Depth (inches): No Depth (inches): monitoring well, aerial photos, prev	vious inspections),	
urface Water Present? Yes vater Table Present? Yes attraction Present? ncludes capillary fringe) Yes scribe Recorded Data (stream gauge, to	No Depth (inches):	vious inspections),	

Project/Site: HAT KANCH State: City/County: State: Applicant/Owner: HAT RANCH State: CA Sam Investigator(s): MARA 200 Section, Township, Range: Landform (hillislope, terrace, etc.): Cron Co Local relief (concave, concave, concave): Landform (hillislope, terrace, etc.): Cron Co Local relief (concave, concave): Subregion (LRR): MARA 228 Lat: A 3815 A Long: HACA 28 L	poling Point: K5N Sect 1, 2 + 3 Yex, none): Datum: NAN 63 NWI classification: O (If no, explain in Remarks.) B "Normal Circumstances" present? Yes X No (If needed, explain any answers in Remarks.) Int locations, transects, important features, et within a Wetland? Yes No Domínance Test worksheet:
Investigator(s): MARA KOOL Section, Township, Range: Landform (hillistope, terrace, etc.): Crook Local relief (concave, consubregion (LRR): MLRA 228 Lat: Lad 3816-36 Long: H. Cool Map Unit Name: 189 mc Crook (Lay 100 m Cool Are Cimatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation , Soil , or Hydrology No naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling pointly Hydrophytic Vegetation Present? Yes No Hydrology Present? Yes No Wetland Hydrology Present? Yes No Soil Is the Sampled Area to Wetland Hydrology Present? Yes No Soil Is the Sampled Area to Species? Status 1. 2. 3. 4	poling Point: Solution Solut
Subregion (LRR): M_LRA_22R	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Pervalence Index worksheet: Total % Cover of: Multiply by: Slope (%): No No No (If needed, explain in Remarks.) No (A
Subregion (LRR): M_LRA_22R	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Pervalence Index worksheet: Total % Cover of: Multiply by: Slope (%): No No No (If needed, explain in Remarks.) No (A
Subregion (LRR): M_LRA_22R	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Pervalence Index worksheet: Total % Cover of: Multiply by: Slope (%): No No No (If needed, explain in Remarks.) No (A
Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? Yes X N Are Vegetation Soil or Hydrology Significantly disturbed? An Are Vegetation Soil or Hydrology No naturally problematic? SUMMARY OF FINDINGS — Attach site map showing sampling pointly Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	NWI classification: O (If no, explain in Remarks.) e "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) Int locations, transects, important features, et within a Wetland? Yes No Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X N Are Vegetation Soil or Hydrology No significantly disturbed? An Are Vegetation Soil or Hydrology No naturally problematic? SUMMARY OF FINDINGS — Attach site map showing sampling pointly hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No No Wetland Hydrology Present? Yes No	NWI classification: O (If no, explain in Remarks.) B "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) Int locations, transects, important features, et Within a Wetland? Yes No O (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: O (A) Prevalence Index worksheet: Total % Cover of: Multiply by:
Are Vegetation Soil or Hydrology Significantly disturbed? An Are Vegetation Soil or Hydrology No naturally problematic? SUMMARY OF FINDINGS — Attach site map showing sampling pointly Hydrophytic Vegetation Present? Yes No Hydrology Present? Yes No Wetland Hydrology Present? Ye	O (If no, explain in Remarks.) a "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) Int locations, transects, important features, et within a Wetland? Yes No (A) Total Mumber of Dominant Species That Are OBL, FACW, or FAC: Total W. Cover of: Multiply by:
Are Vegetation, Soil, or Hydrology NO naturally problematic? SUMMARY OF FINDINGS — Attach site map showing sampling point Hydrophytic Vegetation Present? Yes No	Prevalence Index worksheet: Total % Cover of: Mo (If needed, explain any answers in Remarks.) No (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Yes No Wetland Hydrology Present? Yes No Yes	(If needed, explain any answers in Remarks.) Int locations, transects, important features, et within a Wetland? Yes No Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A) Prevalence Index worksheet: Total % Cover of: Multiply by:
SUMMARY OF FINDINGS - Attach site map showing sampling point Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrol	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Hydric Soil Present? Wetland Hydrology Present? Remarks: VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:) 1. 2. 3. 4. = Total Cover Sapling/Shrub Stratum (Plot size:) 1. 2. 3. 4. = Total Cover	Domínance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Hydric Soil Present? Wetland Hydrology Present? Remarks: VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:) 1. 2. 3. 4. = Total Cover Sapling/Shrub Stratum (Plot size:) 1. 2. 3. 4. = Total Cover	Domínance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Wetland Hydrology Present? Remarks: Olfo Ha Fiplo VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:)	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Remarks: Olfo Ha Fipld VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:)	Domínance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strats: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:)	Domínance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strats: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:)	Domínance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strats: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
VEGETATION - Use scientific names of plants. Tree Stratum (Plot size:)	Domínance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strats: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Tree Stratum (Plot size:)	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Tree Stratum (Plot size:)	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Tree Stratum	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Tree Stratum	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
1	That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
2. 3. 4. Sapling/Shrub Stratum (Plot size:) 1. 2. 3. 4.	Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
3	Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:) 1	Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:) 1.	Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:) 1 2 3	Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:) 1 2 3	Total % Cover of: Multiply by:
1	Total % Cover of: Multiply by:
2	
3	OBL species x 1 =
	FACW species x2=
= Total Cover	FACU species x 4 =
lerb Stratum (Plot size: W/L)	UPL species 80 x5= 400
midimun sortiva & V U.A.	Column Totals: 870 (A) 400 (B)
- The state of 4 470	17 17
	Prevalence Index = B/A =
	Hydrophytic Vegetation Indicators:
	1 - Rapid Test for Hydrophytic Vegetation
Sele and Color	2 - Dominance Test is >50%
	3 - Prevalence Index is <3.01
	A Mar 17
	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
D	5 - Wetland Non-Vascular Plants ¹
- 10 Wat 198	,
	Problematic Hydrophytic Vegetation¹ (Explain)
= Total Cover	Indicators of hydric soil and wetland hydrology must
oody Vine Stratum (Plot size:)	be present, unless disturbed or problematic.
	to see the state of
A Company of the Comp	22 gent = 20
≃ Total Cover	nydrophytic
Bare Ground in Herb Stratum	Vegetation Present? Yes No.
	Present? Yes No X
emarks;	
77 (1941 1945)	
	ļ
	ŧ

DIL .			A CHILD	Rent 76
Profile Description: (Describe to	the depth needed to docu	ment the indicator or c	onfirm the absence of indic	ators.)
Depth Matrix		Redox Features		Remarks
(inches) Color (moist)	% Color (moist)	% Type		
0-18254R4/2	100		Claule	<i>[</i>
) 16 93 FO 110	100			
		Q 17000		
				
		Ta a		
				
				
			(<u>-</u>	
Type: C=Concentration, D=Deple	tion RM=Reduced Matrix. C	S=Covered or Coated S	and Grains. ² Location: PL	=Pore Lining, M=Matrix.
				Ismatia Usebia Caile ³ :
Hydric Soil Indicators: (Applica	ble to all LRRs, unless oth	erwise noted.)		lematic Hydric Soils³:
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10	
Histic Epipedon (A2)	Stripped Matrix	(S6)	Red Parent Mat	erial (1F2)
Black Histic (A3)		Mineral (F1) (except ML		ark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed		Other (Explain i	i remarks)
Depleted Below Dark Surface	(A11) Depleted Matri		المائم	drophytic vegetation and
Thick Dark Surface (A12)	Redox Dark Su		Indicators of hydrolo	gy must be present,
Sandy Mucky Mineral (S1)	Depleted Dark		unless disturbed	l or problematic
Sandy Gleyed Matrix (S4)	Redox Depres	sions (Fo)	unicos ciorareo	or production
4.1.424				فو
estrictive Layer (if present):		Hudric S	oil Present? Yes	No X
		- nyunc s	UII 7 100	
Depth (Inches):				
narks:				
'DROLOGY				
etland Hydrology Indicators: rimary Indicators (minimum of one	required; check all that apply	v)	Secondary Indicators	(2 or more required)
intary indicators (institution of one	Water-Stai	ned Leaves (B9) (exce pt	Water-Stained Le	aves (B9) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2	, 4A, and 4B)	4A, and 4B)	
High Water Table (A2)	Salt Crust		Drainage Pattern	
Saturation (A3)	Aquatic Inv	vertebrates (B13)	Dry-Season Water	
Water Marks (B1)	Hydrogen :	Sulfide Odor (C1)		on Aerial Imagery (C9)
- •	Oxidized F	thizospheres along Living		
			Geomembie Pee	tion (D2)
Sediment Deposits (B2)	Roots (C3))	Geomorphic Pos	
Sediment Deposits (B2) Drift Deposits (B3)	Roots (C3)) of Reduced Iron (C4)	Geomorphic Pos Shallow Aquitard	
Drift Deposits (B3)	Roots (C3) Presence of Recent Iro)	Geomorphic Pos Shallow Aquitard	(D3)
	Roots (C3) Presence of Recent Iro Soils (C6)	of Reduced Iron (C4) In Reduction in Tilled	Geomorphic Pos	(D3)
Drift Deposits (B3) Algal Mat or Crust (B4)	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or) of Reduced Iron (C4)	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour	(D3) (D5) ds (D6) (LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A)	of Reduced Iron (C4) in Reduction in Tilled Stressed Plants (D1)	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes	(D3) (D5) ds (D6) (LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp	of Reduced Iron (C4) In Reduction in Tilled	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour	(D3) (D5) ds (D6) (LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imag	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp	of Reduced Iron (C4) in Reduction in Tilled Stressed Plants (D1)	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour	(D3) : (D5) ds (D6) (LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp	of Reduced Iron (C4) in Reduction in Tilled Stressed Plants (D1)	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour	(D3) (D5) ds (D6) (LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imag Sparsely Vegetated Concave Su	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Export	of Reduced Iron (C4) in Reduction in Tilled Stressed Plants (D1) olain in Remarks)	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour	(D3) (D5) ds (D6) (LRR A)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imag Sparsely Vegetated Concave Su ield Observations:	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp pery (B7) Irface (B8) Depth (inche	of Reduced Iron (C4) In Reduction in Tilled Stressed Plants (D1) Islain in Remarks)	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour Frost-Heave Hur	(D3) ds (D6) (LRR A) nmocks (D7)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imag Sparsely Vegetated Concave Su ield Observations: urface Water Present? Yes Vater Table Present? Yes	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Export	of Reduced Iron (C4) In Reduction in Tilled Stressed Plants (D1) Islain in Remarks)	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour	(D3) ds (D6) (LRR A) nmocks (D7)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imag Sparsely Vegetated Concave Su ield Observations: urface Water Present? Yes Vater Table Present? Yes laturation Present?	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp pery (B7) Irface (B8) Depth (inche	of Reduced Iron (C4) In Reduction in Tilled Stressed Plants (D1) Islain in Remarks) Si: Si:	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour Frost-Heave Hur	(D3) ds (D6) (LRR A) nmocks (D7)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su ield Observations: surface Water Present? Yes Vater Table Present? Yes aturation Present? Yes Includes capiliary fringe)	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp pery (B7) Irface (B8) Depth (inche No Depth (inche	of Reduced Iron (C4) In Reduction in Tilled Stressed Plants (D1) Islain in Remarks) Si: Si: Si:	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour Frost-Heave Hun	(D3) ds (D6) (LRR A) nmocks (D7)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imag Sparsely Vegetated Concave Su ield Observations: urface Water Present? Vater Table Present? aturation Present?	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp pery (B7) Irface (B8) Depth (inche No Depth (inche	of Reduced Iron (C4) In Reduction in Tilled Stressed Plants (D1) Islain in Remarks) Si: Si: Si:	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour Frost-Heave Hun	(D3) ds (D6) (LRR A) nmocks (D7)
Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) inundation Visible on Aerial Imag Sparsely Vegetated Concave Su ield Observations: urface Water Present? /ater Table Present? aturation Present? ncludes capiliary fringe) Yes	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp pery (B7) Irface (B8) Depth (inche No Depth (inche	of Reduced Iron (C4) In Reduction in Tilled Stressed Plants (D1) Islain in Remarks) Si: Si: Si:	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour Frost-Heave Hun	(D3) ds (D6) (LRR A) nmocks (D7)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su Ield Observations: urface Water Present? Yes Vater Table Present? Yes aturation Present? ncludes capillary fringe) Yes scribe Recorded Data (stream gau	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp pery (B7) Irface (B8) Depth (inche No Depth (inche	of Reduced Iron (C4) In Reduction in Tilled Stressed Plants (D1) Islain in Remarks) Si: Si: Si:	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour Frost-Heave Hun	(D3) ds (D6) (LRR A) nmocks (D7)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su Ield Observations: urface Water Present? Yes //ater Table Present? Yes aturation Present? Includes capillary fringe) Yes scribe Recorded Data (stream gau	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Export of Recent Iro Soils (C6) Stunted or (LRR A) Other (Export of Recent Iro Soils (C6) Stunted or (LRR A) Other (Export of Recent Iro Soils (C6) Depth (inchence Iro	of Reduced Iron (C4) In Reduction in Tilled Stressed Plants (D1) Islain in Remarks) s): s): hotos, previous inspection	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour Frost-Heave Hun retland Hydrology Present?	(D3) ds (D5) ds (D6) (LRR A) nmocks (D7) Yes No
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su ield Observations: urface Water Present? Ves aturation Present? ncludes capiliary fringe) Yes	Roots (C3) Presence of Recent Iro Soils (C6) Stunted or (LRR A) Other (Export of Recent Iro Soils (C6) Stunted or (LRR A) Other (Export of Recent Iro Soils (C6) Stunted or (LRR A) Other (Export of Recent Iro Soils (C6) Depth (inchence Iro	of Reduced Iron (C4) In Reduction in Tilled Stressed Plants (D1) Islain in Remarks) s): s): hotos, previous inspection	Geomorphic Pos Shallow Aquitard FAC-Neutral Tes Raised Ant Mour Frost-Heave Hun	(D3) ds (D5) ds (D6) (LRR A) nmocks (D7) Yes No

Westerr	n Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch City/County: Siskiyou	0. * Sampling Date: 8/23/2010
Investigator(s): I WILMY (L. R. (L. V.)). Section Township Bonnes	
	vex, none): Slope (%):
Soil Map Unit Name: 189 medford clay loam cool	, (9a) 51 Datum: NAN 83
Are climatic / hydrologic conditions on the site finited for this item of the site for this item.	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology No significantly disturbed? Are Vegetation, Soil, or Hydrology NO paturally problems in 2	re "Normal Circumstances" present? Yes X No
Table Manager Proporting Co.	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling po	int locations, transects, important features, et
	1
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks:	
Total No.	
pasture	
VEGETATION - Use ecleptific name of the	
VEGETATION - Use scientific names of plants. Absolute Dominant Indicate	Or Dominance Test worksheet:
Tree Stratum (Plot size:) % Cover Species? Status	1
	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.	Total Number of Dominant
3.	Species Across Ali Strata: (B)
4.	Percent of Dominant Species
	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum Relot size;) = Total Cover	
	Prevalence Index worksheet:
	Total % Cover of: Multiply by:
4	OBL species x1=
3	FACW species x 2 =
	The state of the s
= Total Cover	FACU species x 4 =
lerb Stratum (Plot size: \m2)	UPL species (M) x 5 = 300
Preudopamenia Spicota 20 4 120	Column Totals: (A) 300(B)
Bromes textorum 40 / Up.	Prevalence Index = B/A =
	Hydrophytic Vegetation Indicators:
· ** · 'd' ** **	1 - Rapid Test for Hydrophytic Vegetation
18 of 27 th 18 of 2	2 - Dominance Test is >50%
Name of the second	- TOTALISTICS III LIGAN IS 23,0
	4 - Morphological Adaptations ¹ (Provide supporting
).	data in Remarks or on a separate sheet)
	5 - Wetland Non-Vascular Plants ¹
	Problematic Hydrophytic Vegetation ¹ (Explain)
60 = Total Cover	findicators of hydric soil and wetland hydrology must
oody Vine Stratum (Plot size:)	be present, unless disturbed or problematic.
the state of the s	and the second second
= Total Cover	Hydrophytic
Bare Ground in Herb Stratum	Vegetation
	Present? Yes No
and the	
marks:	

SOIL			इं । जार्थी तथा निर्धाति	4+4
Profile Description: (Describe to the depth	needed to document the ind	licator or confirm th	e absence of indicators.)	
Depth Matrix (inches) Color (moist) %	Color (moist) Redox Feat	Type Loc	Texture	Remarks
(110.1007)	COIDI (Moist)		clauloam	
0-18 2,54R4R 100			- Lacy van	
W-1994				
				1
				
				<u> </u>
¹ Type: C=Concentration, D=Depletion, RM=R	teduced Matrix, CS=Covered o	or Coated Sand Grain	ns. ² Location: PL=Pore L	ining, M=Matrix.
			Indicators for Problematic	Hydric Soils ³ :
Hydric Soil Indicators: (Applicable to all L		a.)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Histosol (A1)	Sandy Redox (S5)	27	2 cm Muck (A10) Red Parent Material (TF	-21
Histic Epipedon (A2)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MI RA 1)	Very Shallow Dark Surfa	ace (TF12)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	(CAUCOPE III E I I I I I	Other (Explain in Rema	rks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	-		
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophyt	ic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology must unless disturbed or prob	be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or pro-) STITIBLIC
Restrictive Layer (if present):		Hydric Soil Prese	nt? Yes	No 🛇
Type: Depth (Inches):		11,441,5 00 1 100		
Remarks:				
1				
	noindicators	<u>.</u>		
	no indicators			
HYDROLOGY	noindicators			
HYDROLOGY Wetland Hydrology Indicators:			econdary Indicators (2 or m	ore required)
HYDROLOGY	heck all that apply)	s	econdary Indicators (2 or m Water-Stained Leaves (8	ore required) 9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl	heck all that apply) Water-Stained Leaves (B9) (except	Water-Stained Leaves (B 4A, and 4B)	ore required) 9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11)	B9) (except	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10)	9) (MLRA 1, 2,
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (B	B9) (except)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table	9) (MLRA 1, 2, (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor	B9) (except) 313) (C1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10)	9) (MLRA 1, 2, (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres	B9) (except) 313) (C1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri	9) (MLRA 1, 2, (C2) ial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)	B9) (except) B13) (C1) along Living	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table	9) (MLRA 1, 2, (C2) ial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres	B9) (except) B13) (C1) along Living on (C4)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3)	9) (MLRA 1, 2, (C2) ial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction I Solls (C6)	B9) (except) B13) (C1) along Living on (C4) n Tilled	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2	9) (MLRA 1, 2, (C2) ial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction I Solls (C6) Stunted or Stressed Pla	B9) (except) B13) (C1) along Living on (C4) n Tilled	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5)	9) (MLRA 1, 2, (C2) ial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl 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)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Solls (C6) Stunted or Stressed Plat (LRR A)	B9) (except) C13) (C1) along Living on (C4) n Tilled ants (D1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl 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)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction I Solls (C6) Stunted or Stressed Pla	B9) (except) C13) (C1) along Living on (C4) n Tilled ants (D1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5)	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Solls (C6) Stunted or Stressed Plat (LRR A)	B9) (except) C13) (C1) along Living on (C4) n Tilled ants (D1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl 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)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced In Recent Iron Reduction in Solls (C6) Stunted or Stressed Plat (LRR A)	B9) (except) C13) (C1) along Living on (C4) n Tilled ants (D1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations:	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Ir Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except) C13) (C1) along Living on (C4) n Tilled ants (D1)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Ir Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except) 313) (C1) along Living on (C4) n Tilled ants (D1) rks)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Ir Recent Iron Reduction i Soils (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except) 313) (C1) along Living on (C4) n Tilled ants (D1) rks)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present?	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Ir Recent Iron Reduction i Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema	B9) (except) 313) (C1) along Living on (C4) n Tilled ants (D1) rks)	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
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HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Ir Recent Iron Reduction i Solls (C6) Stunted or Stressed Pla (LRR A) Other (Explain in Rema Depth (inches): Depth (inches):	B9) (except) 313) (C1) along Living on (C4) n Tilled ants (D1) rks) Wetland H	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
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HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cl Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction in Solls (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Rema Depth (inches): Depth (inches): Depth (inches):	B9) (except) B13) (C1) along Living on (C4) n Tilled ants (D1) rks) Wetland I	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks Hydrology Present? Yes allable:	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (includes capillary fringe) Yes No Describe Recorded Data (stream gauge, monitor)	heck all that apply) Water-Stained Leaves (MLRA 1, 2, 4A, and 4B Sait Crust (B11) Aquatic Invertebrates (E Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced in Recent Iron Reduction in Solls (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Rema Depth (inches): Depth (inches): Depth (inches):	B9) (except) 313) (C1) along Living on (C4) n Tilled ants (D1) rks) Wetland H	Water-Stained Leaves (B 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aer Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks Hydrology Present? Yes allable:	9) (MLRA 1, 2, (C2) ial Imagery (C9) 2) (LRR A) (D7)

	TON DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch	City/County Sisking Pr	8/22/2-11
Investigator(s): Andréa Rabe: Landform (hillslope, terrace etc.): ## 1000 C	Section Township Barrer T	ling Point:
Landform (hillslope, terrace, etc.):	Section, Township, Range:	75N, KSW Sect 1,2+3
Subregion (LRR): MLRA 222	Lucal reflet (concave, conve	ex, none): CONCAIM Slope (%): 2
Subregion (LRR): MLRA 228 Soil Map Unit Name:	Lat10.3.3 (003) Long: 41.	Datum: NA
Are climatic / hydrologic conditions on the etter-		NWI classification:
Are Vegetation	al for this time of year? Yes X No	(If no, explain in Remarks.)
Are Vegetation Soil , or Hydrolog	/ 20 significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrolog	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site	mean charries and the	
Hydrophytic Vegetation Present? Yes	lo	t locations, transects, important features, etc
Hydric Soil Present? Hydric Soil Present? Wetland Hydrology Present? Yes Yes	is the Sampled Area w	
Wedaild Hydrology Present? Yes	10	
Remarks:		
Citch		
VEGETATION LINE TOLONALS		
VEGETATION - Use scientific names o	r plants.	
Tree Stratum (Plot size:)	Absolute Dominant Indicator	Dominance Test worksheet:
	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4,		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2.		OBL species x1 =
3.		
4.		
5		FAC species x3 =
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: \m2)	Total Cove)	UPL species x 5 =
1.		Column Totals: (A) (B)
2,		
3.		Prevalence Index = B/A =
4.		Made a bad a Maria da Maria d
5.	Sign of the sign of	Hydrophytic Vegetation Indicators:
6.		1 - Rapid Test for Hydrophytic Vegetation
7.	Silva epote is i	2 - Dominance Test is >50%
-	298.5%	3 - Prevalence Index is ≤3.01
·	Consideration 1	4 - Morphological Adaptations ¹ (Provide supporting
10.		data in Remarks or on a separate sheet)
11,	<u> </u>	5 - Wetland Non-Vascular Plants ¹
-		Problematic Hydrophytic Vegetation¹ (Explain)
Almostus (In a Charles of the Charle	= Total Cover	indicators of hydric soil and wetland hydrology must
Voody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
		Bris Legister .
·	19 10 10 10 10 10 10 10 10 10 10 10 10 10	The second secon
	= Total Cover	Hydrophytic Page 19 19 19 19 19 19 19 19 19 19 19 19 19
% Bare Ground in Herb Stratum		Present? Yes No
	~ AU	
Remarks:	Rob O yes a	- Into lea .
yeu or	10 Val. 105	channapital parse ripouring
novo	720" 1745	Car on the
*	The United	W/W (4)5Y
	1 2.62	- () //

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rofile Description: (Describe to the	e depth needed to docume	nt the indicator or co	onfirm the ab	sence of indicators.)	
DepthMatrix	% Color (moist)	edox Features % Type1	Loc²	Texture	Remarks
			M	Sandy loa	~
-8 2.54R412 9			***	Clara log	
-18 3.54R413 B	<u> </u>			Clayton	
					
					<u> </u>
Type: C=Concentration, D=Depletion	n, RM=Reduced Matrix, CS=0	Covered or Coated Sa	and Grains.	² Location: PL=Pore	Lining, M=Matrix.
lydric Soil Indicators: (Applicable				cators for Problemat	ic Hydric Soils³:
Histosof (A1)	Sandy Redox (S5)			2 cm Muck (A10)	
Histosof (A1) Histic Epipedon (A2)	Stripped Matrix (St	6)	_	Red Parent Material (T	F2)
Black Histic (A3)		eral (F1) (except MLI	RA 1)	Very Shallow Dark Sur Other (Explain in Rem	Tace (IFIZ) arks)
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A	Loamy Gleyed Mar 11) Depleted Matrix (F	uix (<i>r≥)</i> 3)	 '	Street (Explaint in France	 ,
Thick Dark Surface (A12)	Redox Dark Surface	ce (F6)	;	indicators of hydrophy	tic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Sur Redox Depression			wetland hydrology musualless disturbed or pro	
Sandy Gleyed Matrix (S4)	Redox Depression	13 (10)			
strictive Layer (if present):				X	
Type:		Hydric \$	oil Present?	Yes /	No
		I			
Depth (inches):					
DROLOGY					
DROLOGY	nuired: check all that apply)		Secon	ndary Indicators (2 or r	nore required)
DROLOGY	Water-Stained	Leaves (B9) (except	<u> </u>	ater-Stained Leaves (nore required) B9) (MLRA 1, 2,
DROLOGY otland Hydrology Indicators: mary Indicators (minimum of one reconstruction) Surface Water (A1)	Water-Stained MLRA 1, 2, 44	4, and 4B)	V\ 4/	ater-Stained Leaves (A, and 4B)	B9) (MLRA 1, 2,
DROLOGY Itland Hydrology Indicators: mary Indicators (minimum of one rec Surface Water (A1) Thigh Water Table (A2)	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte	4, and 4B) 1) ebrates (B13)	W 44	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Tabl	B9) (MLRA 1, 2,) e (C2)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of one reconstruction) Surface Water (A1) Thigh Water Table (A2)	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte Hydrogen Sulf	A, and 4B) 1) ebrates (B13) fide Odor (C1)	W 44	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10	B9) (MLRA 1, 2,) e (C2)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of one reconstruction) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained MLRA 1, 2, 4A Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize	4, and 4B) 1) ebrates (B13)	W 44 D D S	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Tabl	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
DROLOGY Itland Hydrology Indicators: mary Indicators (minimum of one reconstruction) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained MLRA 1, 2, 4A Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3)	A, and 4B) 1) ebrates (B13) fide Odor (C1)	W 49 D D S G	/ater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Tabl aturation Visible on Ae	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
prology Itland Hydrology Indicators: mary Indicators (minimum of one reconstruction) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained MLRA 1, 2, 44 Salt Crust (B1: Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3) Presence of R Recent Iron R	A, and 4B) 1) ebrates (B13) fide Odor (C1) ospheres along Livinç	W 44 D D S S S S S S S S S S S S S S S S	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3)	B9) (MLRA 1, 2,) e (C2) rial Imagery (C9)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of one rec Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3) Presence of R Recent Iron R Solls (C6)	A, and 4B) 1) ebrates (B13) fide Odor (C1) ospheres along Living leduced Iron (C4) eduction in Tilled	W 44 	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Tabl aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) (2)
DROLOGY stland Hydrology Indicators: mary Indicators (minimum of one rec Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3) Presence of R Recent Iron R Solls (C6) Stunted or Str (LRR A)	A, and 4B) 1) ebrates (B13) fide Odor (C1) ospheres along Living teduced Iron (C4) eduction in Tilled ressed Plants (D1)	W 40 D S G S F R	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (Dellow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) (2)
DROLOGY Itland Hydrology Indicators: mary Indicators (minimum of one reconstruction) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3) Presence of R Recent Iron R Solls (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B) 1) ebrates (B13) fide Odor (C1) ospheres along Living teduced Iron (C4) eduction in Tilled ressed Plants (D1)	W 40 D S G S F R	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Tabl aturation Visible on Ae eomorphic Position (D hallow Aquitard (D3) AC-Neutral Test (D5)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) (2)
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DROLOGY etland Hydrology Indicators: mary Indicators (minimum of one reconstruction (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3) Presence of R Recent Iron R Solls (C6) Stunted or Str (LRR A) Other (Explain	A, and 4B) 1) ebrates (B13) fide Odor (C1) ospheres along Living teduced Iron (C4) eduction in Tilled ressed Plants (D1)	W 40 D S G S F R	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (Dellow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) (2)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of one rec) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfaceld Observations:	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3) Presence of R Recent Iron R Solls (C6) Stunted or Str (LRR A) Other (Explair y (B7) ce (B8)	A, and 4B) 1) ebrates (B13) fide Odor (C1) ospheres along Living teduced Iron (C4) eduction in Tilled ressed Plants (D1)	W 40 D S G S F R	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (Dellow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) (2)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of one recomply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager, Sparsely Vegetated Concave Surface Indicators: urface Water Present?	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3) Presence of R Recent Iron R Solls (C6) Stunted or Str (LRR A) Other (Explair y (B7) ce (B8) Depth (inches):	A, and 4B) 1) ebrates (B13) fide Odor (C1) ospheres along Living deduced fron (C4) eduction in Tilled ressed Plants (D1) in In Remarks)	W 44 D 5 G 5 H F	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (Dellow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6)	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) (2)
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of one rec) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfaceld Observations:	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3) Presence of R Recent Iron R Solls (C6) Stunted or Str (LRR A) Other (Explair y (B7) ce (B8) Depth (inches):	A, and 4B) 1) ebrates (B13) fide Odor (C1) ospheres along Living deduced fron (C4) eduction in Tilled ressed Plants (D1) in In Remarks)	W 44 D 5 G 5 H F	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Acteomorphic Position (Department of the Position (Department of the Position (Department of the Position of	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) (2) (3) (LRR A) s (D7)
DROLOGY atland Hydrology Indicators: imary Indicators (minimum of one reconstruction) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfaceld Observations: Jurface Water Present? Pater Table Present? Saturation Present?	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3) Presence of R Recent Iron R Solls (C6) Stunted or Str (LRR A) Other (Explain y (B7) ce (B8) Depth (inches): No Depth (inches):	A, and 4B) 1) ebrates (B13) fide Odor (C1) ospheres along Living deduced fron (C4) eduction in Tilled ressed Plants (D1) in In Remarks)	W 44 D D S S S S F F F F F F F F F F F F F F	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (Department of the position of the pos	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) (2) (3) (LRR A) s (D7)
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DROLOGY stland Hydrology Indicators: imary Indicators (minimum of one reconstruction) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imager, Sparsely Vegetated Concave Surface Water Present? Fater Table Present? Sparsely Vegetated Concave Surface Water Present? Staturation Present? Secribe Recorded Data (stream gauges)	Water-Stained MLRA 1, 2, 44 Salt Crust (B1 Aquatic Inverte Hydrogen Sulf Oxidized Rhize Roots (C3) Presence of R Recent Iron R Solls (C6) Stunted or Str (LRR A) Other (Explain y (B7) ce (B8) Depth (inches): No Depth (inches):	A, and 4B) 1) ebrates (B13) fide Odor (C1) ospheres along Living deduced fron (C4) eduction in Tilled ressed Plants (D1) in In Remarks)	W 44 D D S S S S F F F F F F F F F F F F F F	Vater-Stained Leaves (A, and 4B) rainage Patterns (B10 ry-Season Water Table aturation Visible on Ae eomorphic Position (Department of the position of the pos	B9) (MLRA 1, 2,) e (C2) erial Imagery (C9) (2) (3) (LRR A) s (D7)
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Project/Site: HAVA Ranch	city/county: Siskiyou Co	8/22/4-11
Applicant/Owner: Hart Ranch	State: A Samo	Sampling Date: 0/23/2010
Investigator(s): Andrea Kabe	January Carlos	
Landform (hillslope, terrace, etc.):	Section, Township, Range:	
Subregion (LRR): MLRA 228	Local relief (concave, conve	x, none):
Soil Map Unit Name: 189	Lac. 18 J. 3800 9 T Long: 911 C	
Are climatic / hydrologic conditions on the site to	unical for this time of years. Very V	NWI classification:
Are Vegetation, Soil, or Hydro		(if no, explain in Remarks.)
Are Vegetation Soil or Hydrol	logy 100 naturally problematic?	"Normal Circumstances" present? Yes X No
	140 Hatthany problematics	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach s	ite map showing sampling point	t locations, transects, important features, etc
- January - Solemon 1000 iki 103	_ 110	
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No Sampled Area w	ithin a Wetland? Yes No X
31	NO A	
Remarks:		
	Pasture	4
VEGETATION - Use scientific names	s of plants	
		Dominance Test worksheet:
Tree Stratum (Plot size:)	Absolute Dominant Indicator <u>% Cover Species? Status</u>	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1		_Total % Cover of: Multiply by:
2.		OBL species x1=
3.		FACW species x 2 =
4		FAC species x 3 =
5		FACU species Zo x4 = 82
	= Total Cover	
lerb Stratum (Plot size: m)	4 4	1/4/2
Centourea Solshtialis		Column Totals: 40 (A) (B)
Blymus Clymoides	70° L Y FACH	Prevalence Index = B/A = 4.3
		Hydrophytic Vegetation Indicators:
	- (1 \ 1 \ 2 \ 2 \ 2 \ 2 \ 2 \ 2 \ 2 \ 2 \ 2	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
·		3 - Prevalence index is ≤3.01
·		4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants ¹
1		Problematic Hydrophytic Vegetation¹ (Explain)
(made) (made)	= Total Cover	¹indicators of hydric soil and wetland hydrology must
/oody Vine Stratum (Plot size:)	1	be present, unless disturbed or problematic.
		A STATE
	The same	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation
Bare Ground in Herb Stratum	- 1	Present? Yes NoX
emarks:		
		-
		i

	depth needed to document the indicato	r or confirm the absence of indicators.)
Depth Matrix	Redox Features Color (moist) % Type	pe' Loc ² Texture Remarks
(inches) Color (moist) %		76
-18 2.54R412 100		
		- /
	=0	
Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered or Coa	ted Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Under Sall Indicators (Applicable to	all I PPe unless otherwise noted \	Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: (Applicable to	ail LRRs, unless otherwise noted.)	
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
Black Histic (A3)	Loamy Mucky Mineral (F1) (excep	Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Outer (Explain in Remains)
Depleted Below Dark Surface (A11	Depleted Matrix (F3) Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic
Sandy Gleyed Wall x (54)		
strictive Layer (if present):		V
	Hvd	ric Soil Present? Yes No
Type:		
Depth (inches):		<u> </u>
	no Indicad	ひ~る
	no Indicad	ひゃゞ
etland Hydrology Indicators:		
etland Hydrology Indicators:	red; check all that apply)	Secondary Indicators (2 or more required)
etland Hydrology Indicators: mary Indicators (minimum of one requi	red; check all that apply) Water-Stained Leaves (B9) (e	Secondary Indicators (2 or more required) xcept Water-Stained Leaves (B9) (MLRA 1, 2,
etland Hydrology Indicators: mary Indicators (minimum of one requi Surface Water (A1)	red; check all that apply) Water-Stained Leaves (B9) (e. MLRA 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required) xcept Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
etland Hydrology Indicators: mary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2)	red; check all that apply) Water-Stained Leaves (B9) (e. MLRA 1, 2, 4A, and 4B) Sait Crust (B11)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
etland Hydrology Indicators: mary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3)	red; check all that apply) Water-Stained Leaves (B9) (e. MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) xcept Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
etland Hydrology Indicators: mary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2)	red; check all that apply) Water-Stained Leaves (B9) (e. MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
etland Hydrology Indicators: mary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3)	red; check all that apply) Water-Stained Leaves (B9) (e. MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Living Geomorphic Position (D2)
etland Hydrology Indicators: mary Indicators (minimum of one requi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	red; check all that apply) Water-Stained Leaves (B9) (e. MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Roots (C3) Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Living Geomorphic Position (D2) Shallow Aquitard (D3)
etland Hydrology Indicators: mary Indicators (minimum of one requisional surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	red; check all that apply) Water-Stained Leaves (B9) (e. MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tille	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Living Geomorphic Position (D2) Shallow Aquitard (D3)
etland Hydrology Indicators: mary Indicators (minimum of one requisional surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	red; check all that apply) Water-Stained Leaves (B9) (e MLRA 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Roots (C3) Presence of Reduced Iron (C4 Recent Iron Reduction in Tille Soils (C6)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Living Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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Are Climatic / hydrologic conditions on the site typical for this time of year? Yes X No Are Vegetation, Soil, or Hydrology No significantly disturbed? Are "No Are Vegetation, Soil, or Hydrology No significantly disturbed? Are "No Are Vegetation, Soil, or Hydrology No significantly disturbed? Are "No Are Vegetation, Soil, or Hydrology No significantly disturbed? Are "No Are Vegetation, Soil, or Hydrology No significantly disturbed? Are "No Are Vegetation, Soil, or Hydrology No significantly disturbed? Are "No Are Vegetation, Soil, or Hydrology No significantly disturbed? Are "No, Soil, or Hydrology No, Soil, or Hydrology No, Soil, Soil	Point: 48 SECT 1, 2+3 Inone): CONCAL Slope (%): SISS Datum: NAN 83 WI classification: PERC (If no, explain in Remarks.) Domai Circumstances" present? Yes X No If needed, explain any answers in Remarks.) Docations, transects, important features, etc.
Investigator(s): MONGO ROLL Section, Township, Range: Landform (hillstope, terrace, etc.): Local relief (concave, convex, not subregion (LRR): MLRA 22R Lat: 122-346-47 Long: 41.61/2 Soil Map Unit Name: 187 pneriford Cay 2010 Not Are climatic / hydrologic conditions on the site typical for this time of year? Yes X Not Are Vegetation Soil or Hydrology Not significantly disturbed? Are "Not Are Vegetation Soil or Hydrology Not naturally problematic? (Instrumentally Present? Yes X Not Hydrology Present? Yes X Not Yes Not Yes Not Yes Not Yes Not Yes Not Not Yes Not	Point: 48 SN SCH 1,2+3 none): CONCAL Slope (%): SSS Datum: NAN 63 WI classification: PERC (If no, explain in Remarks.) promal Circumstances" present? Yes X No If needed, explain any answers in Remarks.) pocations, transects, important features, etc. In a Wetland? Yes No X
Investigator(s): MCRO KOVE Section, Township, Range: Landform (hillslope, terrace, etc.): Croce Local relief (concave, convex, no Subregion (LRR): MLRA ZZR Lat: -122-346-47 Long: YI.67/ Soil Map Unit Name: 187 pne/ford Clay (2000) No Are climatic / hydrologic conditions on the site typical for this time of year? Yes No Are Vegetation , Soil , or Hydrology No significantly disturbed? Are "No Are Vegetation , Soil , or Hydrology No naturally problematic? (If SUMMARY OF FINDINGS - Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No Yes No	ASN, RSW Sect 12+3 none): Concare Slope (%): 355 Datum: NAN R3 WI classification: Perc (If no, explain in Remarks.) comal Circumstances" present? Yes X No If needed, explain any answers in Remarks.) cocations, transects, important features, etc. In a Wetland? Yes No X
Subregion (LRR): MLRA 22B Lat: -122-346-47 Long: 41.61/ Soil Map Unit Name: 187 precifor a Cau (2000) No. Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No. Are Vegetation Soil or Hydrology No. significantly disturbed? Are "No. Are Vegetation Soil or Hydrology No. naturally problematic? (I) SUMMARY OF FINDINGS — Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes X No. Hydrophytic Vegetation Present? Yes X No. Hydroc Soil Present? Yes X No. Wetland Hydrology Present? Yes X No. No. Remarks: VEGETATION — Use scientific names of plants. Tree Stratum (Plet size:) Absolute Dominant Indicator Species? Status	Slope (%): Slope
Soil Map Unit Name: 187 pnerifor a Cau nam Coo No Are climatic / hydrologic conditions on the site typical for this time of year? Yes No Are Vegetation, Soil, or Hydrology No naturally problematic? (I SUMMARY OF FINDINGS - Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No Hydrology Present? Yes No Wetland Hydrology Present? Yes No	WI classification: (If no, explain in Remarks.) promal Circumstances" present? Yes X No If needed, explain any answers in Remarks.) pocations, transects, important features, etc. In a Wetland? Yes No X
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Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No Are Vegetation, Soil, or Hydrology No significantly disturbed? Are "No Are Vegetation, Soil, or Hydrology No naturally problematic? (I SUMMARY OF FINDINGS — Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Yes	(If no, explain in Remarks.) commal Circumstances" present? Yes No No No No No No No No No N
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Are Vegetation, Soil, or Hydrology NO naturally problematic? (I SUMMARY OF FINDINGS — Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No Yes N	If needed, explain any answers in Remarks.) Ocations, transects, important features, etc. In a Wetland? Yes No
SUMMARY OF FINDINGS – Attach site map showing sampling point to Hydrophytic Vegetation Present? Yes No Yes	ocations, transects, important features, etc in a Wetland? Yes No
Hydric Soil Present? Wetland Hydrology Present? Remarks: VEGETATION – Use scientific names of plants. Tree Stratum (Plet size:) Absolute % Cover Species? Status	in a Wetland? Yes No X
Hydric Soil Present? Wetland Hydrology Present? Remarks: VEGETATION – Use scientific names of plants. Tree Stratum (Plet size:) Absolute % Cover Species? Status	in a Wetland? Yes No X
Remarks: VEGETATION - Use scientific names of plants. Tree Stratum (Plet size:) Absolute % Cover Species? Status	
VEGETATION - Use scientific names of plants. Tree Stratum (Plet size:)	Dominance Test workshoot:
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Tree Stratum (Plet size:) Absolute Dominant Indicator % Cover Species? Status	Dominance Test workshoot
Tree Stratum (Plet size:) Absolute Dominant Indicator % Cover Species? Status	Dominance Test workshoot
Tree Stratum (Plet size:) Absolute Dominant Indicator % Cover Species? Status	Dominance Test workshoot
Tree Stratum (Plet size:)	Dominance Test workshoot:
	COUNTRICE LEST MOI VOIGHT
1.	Number of Dominant Species 2
	That Are OBL, FACW, or FAC: (A)
2.	Total Number of Dominant
3.	Species Across All Strata: (B)
4.	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	(AUB)
Sapling/Shrub Stratum (Plot size:)	
	Prevalence Index worksheet:
	Total % Cover of: Multiply by:
	OBL species x1 =
3.	FACW species ZO x2=40
	FAC species $\angle 0$ x3 = 30
	FACU species SO x4=200
lerb Stratum (Plot size: 177)	UPL species x 5 =
	Column Totals: 80 (A) 270 (B)
Class area delinests	
	Prevalence Index = B/A = 3.4
	Charles to the Manager of the Manage
- littorda	Hydrophytic Vegetation Indicators:
	1 - Rapid Test for Hydrophytic Vegetation
- Secrements as a	2 - Dominance Test is >50%
	3 - Prevalence Index is ≤3.01
	4 - Morphological Adaptations (Provide supporting
).	data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹
	_ 9 - wetland Non-vascular Plants - _ Problematic Hydrophytic Vegetation¹ (Explain)
8D = Total Cover	
	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
(100020.	e present, unless disturbed or problematic.
The second secon	100
= Total Cover	lydrophytic
Bare Ground in Herb Stratum	egetation
Pi	resent? Yes No
marks:	

SOIL	Samulagi Salak
	cument the indicator or confirm the absence of Indicators.) Redox Features
Depth Matrix (inches) Color (moist) % Color (moist)	Proceedings
(
0-18 2,54R41260	
1524727	
<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	
	<u> </u>
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix	, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless of	otherwise noted.) Indicators for Problematic Hydric Soils ³ :
Histosof (A1) Sandy Redo Stripped Ma	···\
Histic Epipedon (A2) Black Histic (A3) Stripped Mar Loamy Muck	(y Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)
	ed Matrix (F2) Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Ma	atrix (F3)
Thick Dark Surface (A12) Redox Dark	Surface (F6) 3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Depleted Da	rk Surface (F7) wetland hydrology must be present,
Sandy Gleyed Matrix (S4) Redox Depre	essions (F8) unless disturbed or problematic
Restrictive Layer (if present):	Hydric Soil Present? Yes No
Type:	Hydric Soil Present? Yes No
Depth (inches):	
MA is A	a share where
THO WA	ticators
	AI CATOVS
YDROLOGY Wetland Hydrology Indicators:	
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap	ply) Secondary Indicators (2 or more required)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S	Secondary Indicators (2 or more required) tained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) MLRA 1	Secondary Indicators (2 or more required) tained Leaves (B9) (except , 2, 4A, and 4B) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) MLRA 1 High Water Table (A2) Salt Crus	Secondary Indicators (2 or more required) tained Leaves (B9) (except , 2, 4A, and 4B) st (B11) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Salt Crust Saturation (A3)	Secondary Indicators (2 or more required) tained Leaves (B9) (except 2, 4A, and 4B) st (B11) Invertebrates (B13) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Hydroge	Secondary Indicators (2 or more required) tained Leaves (B9) (except , 2, 4A, and 4B) st (B11) Invertebrates (B13) in Sulfide Odor (C1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Hydroge Oxidized	Secondary Indicators (2 or more required) tained Leaves (B9) (except , 2, 4A, and 4B) st (B11) Invertebrates (B13) in Sulfide Odor (C1) I Rhizospheres along Living Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Wetland: Water Aquatic Hydroge Oxidized Roots (C	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) Rhizospheres along Living C3) Se of Reduced fron (C4) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) I Rhizospheres along Living C3) I of Reduced fron (C4) Iron Reduction in Tilled Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Presence Algal Mat or Crust (B4) Presence Algal Mat or Crust (B4)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) If Rhizospheres along Living C3) In of Reduced Iron (C4) Iron Reduction in Tilled Item (C4) Iron Reduction in Tilled Item (C5) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Presence Soils (C4) Stunted	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) If Rhizospheres along Living C3) e of Reduced fron (C4) ron Reduction in Tilled C6) or Stressed Plants (D1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) If Rhizospheres along Living C3) If of Reduced fron (C4) Iron Reduction in Tilled C6) Or Stressed Plants (D1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) If Rhizospheres along Living C3) e of Reduced fron (C4) ron Reduction in Tilled C6) or Stressed Plants (D1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) If Rhizospheres along Living C3) If of Reduced fron (C4) Iron Reduction in Tilled C6) Or Stressed Plants (D1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) If Rhizospheres along Living C3) If of Reduced fron (C4) Iron Reduction in Tilled C6) Or Stressed Plants (D1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) If Rhizospheres along Living C3) If of Reduced fron (C4) Iron Reduction in Tilled C6) Or Stressed Plants (D1) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) If Rhizospheres along Living (C3) If or Reduced Iron (C4) Iron Reduction in Tilled (C5) Or Stressed Plants (D1) Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) Rhizospheres along Living (C3) In of Reduced fron (C4) Iron Reduction in Tilled (C3) Or Stressed Plants (D1) Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves No Depth (inc) Saturation Present? Ves No Depth (inc) Saturation Present?	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) Rhizospheres along Living (C3) Pe of Reduced fron (C4) Iron Reduction in Tilled (C6) Or Stressed Plants (D1) Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present?
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves No Depth (inc) Saturation Present? (includes capillary fringe) Ves No Depth (inc)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) Rhizospheres along Living (C3) In Reduction in Tilled (C4) Iron Reduction in Tilled (C5) Or Stressed Plants (D1) Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Thes): Thes): Wetland Hydrology Present? Wetland Hydrology Present? Yes No No
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves No Depth (inc) Saturation Present? (includes capillary fringe) Ves No Depth (inc)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) Rhizospheres along Living (C3) Pe of Reduced fron (C4) Iron Reduction in Tilled (C6) Or Stressed Plants (D1) Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Yes No No
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) If Rhizospheres along Living (C3) In or Stressed Plants (D1) In or Stressed Plants (D1) Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Yes No No
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) Rhizospheres along Living (C3) Pe of Reduced fron (C4) Iron Reduction in Tilled (C6) Or Stressed Plants (D1) Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Yes No No
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) Rhizospheres along Living (C3) In Reduction in Tilled (C4) Iron Reduction in Tilled (C5) Or Stressed Plants (D1) Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Thes): Thes): Wetland Hydrology Present? Wetland Hydrology Present? Yes No No
Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves No Depth (includes capillary fringe) Secribe Recorded Data (stream gauge, monitoring well, aerial of the concave of	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) If Rhizospheres along Living (C3) In or Stressed Plants (D1) In or Stressed Plants (D1) Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Yes No No
Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap Water-S Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves No Depth (incidence Secribe Recorded Data (stream gauge, monitoring well, aerial secribe Recorded Data (stream gauge)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) St (B11) Invertebrates (B13) In Sulfide Odor (C1) Rhizospheres along Living (C3) Pe of Reduced fron (C4) Iron Reduction in Tilled (C6) Or Stressed Plants (D1) Explain in Remarks) Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Yes No No

Investigator(s): Landform (hillslope, terrace, etc.): Subregion (LRR): MLRA 22R Soil Map Unit Name: Are climatic / hydrologic conditions on the site ty Are Vegetation Are Vegetation Soil Or Hydrologic Are Vegetation	Local relief (concave, conv Lat: 172.373678 Long: 91. Silt 100.M pical for this time of year? Yes X No gy No significantly disturbed? Are gy No naturally problematic? te map showing sampling poir No No Sis the Sampled Area of	ex, none): COVIAME Slope (%): PART STATE
'\.	crigated one	hara a
		CU/U
VEGETATION - Use scientific names	of plants.	
Tree Stratum (Plot size:) 1 2 3 4.	Absolute Dominant Indicato	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A) (B)
Our Bras (O) and O of the Control of	= Total Cover	
Sapling/Shrub Stratum (Rlot size:) 1	= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 = FACW species x 3 = FACU species x 4 = UPL species x 5 =
Distichlis spicata	30 V FACW	Column Totals: ZD (A) GD (B)
Elytingia repens	30 Y NI	Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
	1277 1 3037	1 - Rapid Test for Hydrophytic Vegetation
	34 A ST 256 A S	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.01
	(M.) (1)	4 - Morphological Adaptations (Provide supporting
).		data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹
	941 12	Problematic Hydrophytic Vegetation¹ (Explain)
(Plot size:)	= Total Cover	¹ indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		50 A SERVICE
Bare Ground in Herb Stratum 45	= Total Cover	Hydrophytic Vegetation Present? Yes No
emarks:		

SOIL			Salajalno Polaja 49
Profile Description: (Describe to the	depth needed to document the in	dicator or confi	rm the absence of indicators.)
Depth Matrix	Redox Fe	atures	
(inches) Color (moist) %	Color (moist) %	_Type¹ _	Loc ² Texture Remarks
O-6 104R412 100		_	
			10 am
			
13-18 104281, 10	·	92	<u>Sil+ 10cm</u>
			
	_:		
		 _	
¹ Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered	or Coated Sand	
Hydric Soil Indicators: (Applicable to	o all LRRs, unless otherwise note	ed.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1)	(except MLRA	1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)		م من منافع من منافع مناف
Thick Dark Surface (A12)	Redox Dark Surface (F6)	r \	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7	')	unless disturbed or problematic
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	<u> </u>	GIROS GIOLANDOS DI PIOSISIA
Paradistrus haves (16 managet):			,
Restrictive Layer (if present):		Hydric Soll F	Present? Yes No
Type:		Hydric Soil 1	TOOLIK!
Depth (inches):		<u> </u>	<u> </u>
Remarks:			
	noindicatos	·	
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (minimum of one requi	red; check all that apply)		Secondary Indicators (2 or more required)
	Water-Stained Leaves	(B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, and 4	B)	4A, and 4B)
High Water Table (A2)	Salt Crust (B11)	(T.40)	Drainage Patterns (B10) Dry-Season Water Table (C2)
Saturation (A3)	Aquatic Invertebrates ((B13) - (C4)	Saturation Visible on Aerial Imagery (C9)
Water Marks (B1)	Hydrogen Sulfide Odor		Saturation visible on Acres integers (00)
0 -th D (D0)	Oxidized Rhizospheres Roots (C3)	s atorig Living	Geomorphic Position (D2)
Sediment Deposits (B2)	Presence of Reduced	Iron (C4)	Shallow Aquitard (D3)
Drift Deposits (B3)	Recent Iron Reduction		
Algal Mat or Crust (B4)	Soils (C6)		FAC-Neutral Test (D5)
Algai Mat Of Ordet (D4)	Stunted or Stressed Pl	lants (D1)	
Iron Deposits (B5)	(LRR A)		Raised Ant Mounds (D6) (LRR A)
	Other (Explain in Rem	arks)	Frost-Heave Hummocks (D7)
	54/6/ (2.4/6//		
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)		
Surface Soil Cracks (B6)	B7)		
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)		
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations:	B7) (B8)		.,
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes	B7) (B8) No X Depth (Inches):	142.41	and Hartrology Present? Vee X No
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Yes	B7) (B8)	Wetla	and Hydrology Present? Yes X No
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present?	No Depth (Inches): No Depth (Inches):		and Hydrology Present? Yes X No
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	No Depth (Inches): No Depth (Inches): Depth (Inches):	172	
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	No Depth (Inches): No Depth (Inches): Depth (Inches):	172	
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	No Depth (Inches): No Depth (Inches): Depth (Inches):	172	
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes Describe Recorded Data (stream gauge, fi	No Depth (Inches): No Depth (Inches): Depth (Inches):	172	
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe)	No Depth (Inches): No Depth (Inches): Depth (Inches):	172	
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes Describe Recorded Data (stream gauge, fi	No Depth (Inches): No Depth (Inches): Depth (Inches):	172	
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? (includes capillary fringe) Yes Describe Recorded Data (stream gauge, for	No Depth (Inches): No Depth (Inches): Depth (Inches):	172	

Project/Site: Hart Ranch	city/County: Siskiyou C	S/as/
Applicant/Owner: Hart Ranch	City/County: 315K1V01C	9. Sampling Date: 0/23/2010
Investigator(s): Andrea Kaloe	State: CA Samp	ling Point:
Landform (hillslope, terrace, etc.):	A C local relief (construe construe	45N, R5N Sect 1,2+3
Subregion (LRR): MLRA 228	Lat: 122.37/3(.6 Long: 41.1	ex, none):
	lle sit loam	
Are climatic / hydrologic conditions on the site t	ypical for this time of year? Yes Y No	NWI classification:
Are Vegetation , Soil , or Hydro		"Normal Circumstances" present? Yes X
Are Vegetation, Soil, or Hydroi	logy NO naturally problematic?	(If needed, explain any answers in Remarks.)
SHMMADY OF FINDINGS	44.	·
Hydrophytic Vegetation Present? Yes	ite map showing sampling poin	t locations, transects, important features, etc
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No sthe Sampled Area w	
Remarks:		
	Irrigated part	rune
VEGETATION LIGA COLONICA		
VEGETATION - Use scientific names	s of plants.	
Tree Stratum (Plot size:	Absolute Dominant Indicator	1
1.	% Cover Species? Status	Number of Dominant Species
2.		That Are OBL, FACW, or FAC: (A) Total Number of Dominant
3.		Species Across All Strata: 2 (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
- II. II. II.	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
3		OBL species x1 =
4.		FACW species 20 x 2 = 20
5.		FAC species SD x3 = 250
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 1272)		UPL species x 5 =
1. Juneus airticus	20 Y FACW	Column Totals: 30 (A) 70 (B)
2. Poa prutenses	SO Y SAC	Prevalence Index = B/A = 2/8
		Hydrophytic Vegetation Indicators:
	A William Tools	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
		3 - Prevalence Index Is ≤3.01
		4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants ¹
1.		Problematic Hydrophytic Vegetation¹ (Explain)
	TO = Total Cover	¹Indicators of hydric soil and wetland hydrology must
Voody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
	<u> </u>	100 m
	4.66.70	Part of the second seco
Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
	1	
emarks:		

OIL			Sampling Foliat 50
Profile Description: (Describe to the de	pth needed to document the i	ndicator or cor	firm the absence of indicators.)
Depth Matrix (inches) Color (moist) %	Color (moist) %		Loc ² Texture Remarks
2-10 IDYR412 100			
	· · · · · · · · · · · · · · · · · · ·		loam
1048 6/2 100			
3-18 10412811 100			silt loan
Type: C=Concentration, D=Depletion, RI	M=Reduced Matrix, CS=Covere	 d or Coated San	d Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to		· · · · · · · · · · · · · · · · · · ·	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F'	1) (except MLR/	(1) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remains)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Depleted Matrix (F3) Redox Dark Surface (F6)		³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F		wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	·	unless disturbed or problematic
estrictive Layer (if present):			*
Type:		Hydric Soi	Present? Yes No
Depth (inches):			
narks:		·	
/DROLOGY	noindic	(N) (N) (N)	
etland Hydrology Indicators:	di cheek all that apply)		Secondary Indicators (2 or more required)
rimary Indicators (minimum of one require	water-Stained Leave	s (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, and	4B)	4A, and 4B)
High Water Table (A2)	Salt Crust (B11)		Drainage Patterns (B10)
Saturation (A3)	Aquatic Invertebrates	(B13)	Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Water Marks (B1)	Hydrogen Sulfide Od	or (C1)	Saturation visible on Aerial imagery (03)
Sediment Deposits (B2)	Oxidized Rhizosphere Roots (C3)	es along civing	Geomorphic Position (D2)
Drift Deposits (B3)	Presence of Reduced	d Iron (C4)	Shallow Aquitard (D3)
Diff Deposits (Do)	Recent Iron Reduction		
Algal Mat or Crust (B4)	Soils (C6)	Plante (D4)	FAC-Neutral Test (D5)
Iron Deposits (B5)	Stunted or Stressed ((LRR A)	riants (D1)	Raised Ant Mounds (D6) (LRR A)
Surface Soil Cracks (B6)	Other (Explain in Rer	marks)	Frost-Heave Hummocks (D7)
Inundation Visible on Aerial Imagery (B)		•	
Sparsely Vegetated Concave Surface (B8)		
ield Observations:			
surface Water Present? Yes N		We	tland Hydrology Present? Yes 🐰 No _
urface Water Present? Yes N Vater Table Present? Yes N saturation Present?	Depth (Inches):		tland Hydrology Present? Yes 🐰 No
urface Water Present? Yes Note Table Present?	Depth (inches):	<u>n</u>	
urface Water Present? Yes Note Table Present? Yes Note Table Present? Yes Note Table Present? Yes Note Table Present? Note Table Present? Note Table Present? Yes Note Table Present?	Depth (inches):	<u>n</u>	
urface Water Present? Yes Note Table Present? Yes Note Table Present? Yes Note Table Present? Note Table P	Depth (inches):	<u>n</u>	
urface Water Present? Yes Note Table Present? Yes Note Table Present? Note Table Present Present? Note Table Present Present? Note Table Present Present? Note Table P	Depth (inches):	<u>n</u>	
urface Water Present? Yes N Vater Table Present? Yes N aturation Present?	Depth (inches):	<u>n</u>	

^		wountains, valleys, and Coast Region
Project/Site: HAN RANCH	Sisking P.	8/22/2-11
Applicant/Owner: Hart Ranch Investigator(s): Andrea Rabe Landform (hillslope, terrace etc.): Trico	Chycounty: 218 (1400-14	Sampling Date: 0/23/2010
Investigator(s): PMALA KA IOO	State: Samp	ling Point:
Landform (hillsione terrace etc.):	Section, I ownship, Range:	75N, K5W Sect 1,2+3
Landform (hillslope, terrace, etc.): TCITO (Local relief (concave, conve	x, none): Condex Slope (%): 2
Soil Man Linit Name: 102	Lat: [22,345] Long: 41,60	x, none): (and x Slope (%): Z S
Are climatic / hydrologic conditions on the site typ	No	(If no, explain in Remarks.)
110 1090mm, 1000 101 101 1010	By 140 significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrolog	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach eit	o man abouting consultance to	
Hydrophytic Vegetation Present? Yes	No X	t locations, transects, important features, et
Hydric Soil Present?	No. 1 de the Committee of	ithin a Wetland? Yes No
Wetland Hydrology Present? Yes	No Sc	168 40 <u>\</u>
Remarks:	7,5	
ditch bank		
Gr r denyto		
MODEL ATION AND ADDRESS OF THE PARTY OF THE		
VEGETATION - Use scientific names	of plants.	
Tena Steature	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Rlot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species x1 =
		FACW species x 2 =
•		FAC species x3 =
	= Total Cover	
erb Stratum (Plot size: 1/2)		UPL species 50 x 5 = 250
Containe soistitions	30 4 UPL	Column Totals: (A) (B)
Fectuca idahrensis	30 V FACU	Prevalence Index = B/A = 4.4
Proudorementa Spicata	20 8 110	TOTAL OF THE CANADA
		Hydrophytic Vegetation Indicators:
•	Supplied to the supplied to	** ·
	Stage of the stage	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50% 3 - Prevalence Index is ≤3,01
	1984 F. C.	
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation¹ (Explain)
•	= Total Cover	
pody Vine Stratum (Plot size:	- Total Cover	¹Indicators of hydric soil and wetland hydrotogy must be present, unless disturbed or problematic,
	Ļ	Propositi minesa diatmined of hionististic.
	1	(#1116) -
	= Total Cover	Hydrophytic
Bare Ground in Herb Stratum	- rotal Cover	Vegetation
	1	Present? Yes No
marks:		
161173.		
		İ
		1

SOIL			Religional Polic	519
Profile Description: (Describe to the depth no	eeded to document the ind Redox Feat	icator or confirm	the absence of indicators	'
Depth Matrix (inches) Color (moist) %	Color (moist) %	Type Lo	c ² Texture	Remarks
0-11 104R6/2 100			loam	
			Toam	
11-18 loyr611 100 _			100014	
				
			<u> </u>	
,				
<u> </u>				
¹Type: C=Concentration, D=Depletion, RM=Rec	duced Matrix, CS=Covered o	r Coated Sand Gra	nins. ² Location: PL=Pore	Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LR			Indicators for Problema	tic Hydric Soils³:
	Sandy Redox (S5)	•••	2 cm Muck (A10)	
Histic Enipedon (A2)	Stripped Matrix (S6)		Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Su Other (Explain in Rem	rface (TF12)
	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)		Other (Explain in Ren	idins)
	Redox Dark Surface (F6)		³ Indicators of hydroph	ytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology mu	ist be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or pr	oblematic
Restrictive Layer (if present):				
Type:		Hydric Soil Pres	sent? Yes	No X
Depth (inches):				
Remarks:				
		al Kalin	e	
HYDROLOGY				
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; che	ok all that anniv)		Secondary Indicators (2 or	more required)
Primary Indicators (minimum of one required, che	Water-Stained Leaves (F	39) (except	Water-Stained Leaves	(B9) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, and 4B)	-	4A, and 4B) Drainage Patterns (B10	11
High Water Table (A2)	Salt Crust (B11) Aquatic Invertebrates (B	13)	Dry-Season Water Tab	le (C2)
Saturation (A3) Water Marks (B1)	Hydrogen Sulfide Odor ((C1)	Saturation Visible on A	erial Imagery (C9)
Water Marko (DT)	Oxidized Rhizospheres	along Living		-01
Sediment Deposits (B2)	Roots (C3)	(C4)	Geomorphic Position (I Shallow Aquitard (D3)	J2)
Drift Deposits (B3)	Presence of Reduced In Recent Iron Reduction in		Stiallow Addition (DO)	
Algal Mat or Crust (B4)	Soils (C6)	_	FAC-Neutral Test (D5)	
	Stunted or Stressed Pla	nts (D1)	Raised Ant Mounds (D	6) /I RR A)
Iron Deposits (B5)	(LRR A) Other (Explain in Remai	rks)	Frost-Heave Hummock	
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	— Other (Explain in Ivenial	K0)		
Sparsely Vegetated Concave Surface (B8)				
		- 	<u> </u>	
Field Observations: Surface Water Present? Yes No	Depth (inches):	\		
Surface Water Present? Yes No No	Depth (inches):	Wetland	Hydrology Present?	'es No
Saturation Present?	<u> </u>	_	•	
(includes capillary fringe) Yes No	Depth (inches):	- langeties l'é-	wajjable:	
Describe Recorded Data (stream gauge, monitoring	ig well, aerial photos, previou	is inspections), if a	wanadie.	
1				
Remarks:				<u> </u>
	Å ¢			
	no indicat	70 (5		

		Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch	city/county: Siski Vinu /	D. Sampling Date: 8/22/2016
Applicant/Owner: Hart Ranch	State: CA Som	Sampling Date: 0/23/2010 poling Point: 5 W Sect 1, 2+3
Investigator(s): Andréa Kaloe	Section, Township, Range:	45N CELL SOF 213
Landform (hillslope, terrace, etc.): +evm	Ce Local relief (concave con-	/ex, none): Contave Slope (%):
		and a real property of the second of the sec
Soil Map Unit Name: 153 ga:	Telle Silt Inam	NWI classification
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes 💙 N	O /if no evalois is Remodus \
, On, Or Hydroid	YYY I™U SIQIIITICANTIV OISTUICHAG? Ara	9 "Normal Circumstances" presents Van Y
Are Vegetation , Soil , or Hydrold	Pgy NO naturally problematic?	(If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes	te map snowing sampling poil	nt locations, transects, important features, et
		within a Wetland? Yes X No
Remarks:	· ·	
1.101		
<u>aiton</u>	_	
MOSTATION		
VEGETATION - Use scientific names	of plants.	
Tron Stratic (Blat size	Absolute Dominant Indicato	Dominance Test worksheet:
Tree Stratum (Plot size:) 1.	% Cover Species? Status	1 Promoci of Dominiant Species
		That Are OBL, FACW, or FAC:(A)
		Total Number of Dominant
3.		Species Across All Strata: (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
		(705)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Prevalence Index worksheet:
(101326.		1 _
		Total % Cover of: Multiply by:
		OBL species x1 =
		FACW species x 2 =
		FAC species x3 =
	= Total Cover	FACU species x 4 =
erb Stratum (Plot size: 12)		UPL species x 5 =
		Column Totals: (A) (B)
		Prevalence Index = B/A =
		1 TOTAL OF THURK I DIA
		Hydrophytic Vegetation Indicators:
	18 18 18	1 - Rapid Test for Hydrophytic Vegetation
	he se second as h	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3,01
		4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation¹ (Explain)
andy Man Charles	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
oody Vine Stratum (Riot size:)	·	be present, unless disturbed or problematic.
		Marie California -
	الله الله الله الله الله الله الله الله	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation
or or oung in merb stratum		D
narks:	oper Doblemand	Sa-chan abrupt dge

US Army Corps of Engineers

						ইচ্চাৰা বিভাইতা নি	51b
OIL Profile Descript	ion: (Describ	e to the de	nth needed to docu	ment the indica	tor or confir	m the absence of Indicators.)	*
Depth Descript	Matrix	ue ue (p	Redox Feature	S		
	Color (moist)	%	Color (moist)_		ype'	Loc ^z Texture	Remarks
		4	1044/1	7.		loam_	
	0486/2		107471	Co			
10-18 1	DYRGA	100				oam_	
				_			
							
						<u> </u>	
				-			
¹ Type: C=Conce	entration, D=De	epletion, RN	/I=Reduced Matrix, €	S=Covered or C	pated Sand G	Srains. ² Location: PL=Pore Li	ning, M=Matrix.
Marketa Call Incl	Footors: /Ann	licable to	all LRRs, unless oth	erwise noted.)		Indicators for Problematic	Hydric Soils ³ :
nyaric son ina	icarota: (whb	incable to a				2 cm Muck (A10)	•
Histosol (A1	•		Sandy Redox			Red Parent Material (TF:	2)
Histic Epipe			Stripped Matrix	((56) Minaral (54) (awa	ant MI DA 4		
Black Histic				Mineral (F1) (exc	ept wilka 1	Other (Explain in Remark	ke)
Hydrogen S			Loamy Gleyed			Omer (Explain in Remain	no)
	elow Dark Surf	ace (A11)	Depleted Matri			3Indicators of hydrophytic	nue policiana
	Surface (A12)	_	Redox Dark S			wetland hydrology must	he present
	ky Mineral (S1		Depleted Dark			unless disturbed or prob	lematic
Sandy Gley	red Matrix (S4)		Redox Depres	sions (F8)		unless disturbed of prob	(C) FIGURE
				i			
Restrictive Layer	(if present):				ydric Soll Pr	want? Yes	No
Type:		<u> </u>		H	yarıc son Pr	resent res	
Depth (inches)):						
emarks:							
YDROLOGY							
Wetland Hydrolo	gy Indicators					Secondary Indicators /2 or mo	ore required)
Wetland Hydrolo	gy Indicators (minimum of c	: one require	d; check all that appl	y)		Secondary Indicators (2 or mo	ore required)
Wetland Hydrolo Primary Indicators	(minimum of	: one require	Water-Sta	ned Leaves (B9)	(except	Water-Stained Leaves (BS	ore required)
Wetland Hydrolo Primary Indicators Surface Water	(Minimum of (: one require	Water-Sta	ned Leaves (B9) 2 , 4A, and 4B)	(except	Water-Stained Leaves (BS 4A, and 4B)	ore required)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta	(Minimum of ((A1) ble (A2)	: one require	Water-State MLRA 1, 2 Salt Crust	ned Leaves (B9) 2 , 4A, and 4B) (B11)		Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10)	9) (MLRA 1, 2,
Vetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3)	(Minimum of ((A1) ble (A2)	: one require	Water-Star MLRA 1, 2 Salt Crust Aquatic In	ned Leaves (B9) 2 , 4A, and 4B) (B11) vertebrates (B13)	· 	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table	9) (MLRA 1, 2, (C2)
Wetland Hydrolo Primary Indicators ✓ Surface Water ✓ High Water Ta	(Minimum of ((A1) ble (A2)	: one require	Water-Star MLRA 1, 2 Salt Crust Aquatic In	ned Leaves (B9) 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10)	9) (MLRA 1, 2, (C2)
Vetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3) Water Marks (I	(Minimum of ((A1) ble (A2)) B1)	one require	Water-Stal MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alor)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria	(C2) (MLRA 1, 2, (C2) al Imagery (C9)
Vetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I	(A1) ble (A2)) B1) osits (B2)	cone require	Water-Stal MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3	ned Leaves (B9)) ng Living	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2)	(C2) (MLRA 1, 2, (C2) al Imagery (C9)
Vetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3) Water Marks (I	(A1) ble (A2)) B1) osits (B2)	cone require	Water-Stal MLRA 1, 2 Salt Crust Aquatic In: Hydrogen Oxidized F Roots (C3 Presence	ned Leaves (B9)) ng Living (C4)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria	(C2) (MLRA 1, 2, (C2) al Imagery (C9)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3) Water Marks (I Sediment Depo	(A1) ble (A2)) B1) osits (B2) (B3)	cone require	Water-Stal MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro	ned Leaves (B9)) ng Living (C4)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3)	(C2) (MLRA 1, 2, (C2) al Imagery (C9)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I	(A1) ble (A2)) B1) osits (B2) (B3)	: one require	Water-Stal MLRA 1, 2 Salt Crust Aquatic Inr Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6)	ned Leaves (B9)) ng Living (C4) illed	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2)	(C2) (MLRA 1, 2, (C2) al Imagery (C9)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Depo- Drift Deposits (Algal Mat or C	(A1) ble (A2)) B1) osits (B2) (B3) rust (B4)	; one require	Water-Stal MLRA 1, 2 Salt Crust Aquatic Inr Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or	ned Leaves (B9)) ng Living (C4) illed	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	(C2) (MLRA 1, 2, (C2) al Imagery (C9)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Depo Drift Deposits (Iron Deposits (I	(A1) ble (A2)) B1) osits (B2) (B3) rust (B4)	: one require	Water-Stal MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A)	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor of Reduced Iron on Reduction in Tile Stressed Plants	(C4) (D1)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) al Imagery (C9)
Vetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deports Onth Deposits (I Iron Deposits (I) Surface Soil C	(A1) ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) tracks (B6)	one require	Water-Stal MLRA 1, 2 Salt Crust Aquatic Inr Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (B9)	(C4) (D1)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	(C2) al Imagery (C9)
Vetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deporting Drift Deposits (I) Iron Deposits (I) Surface Soil CI Inundation Vis	(A1) ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) tracks (B6) ible on Aerial 1	magery (B7	Water-Stal MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor of Reduced Iron on Reduction in Tile Stressed Plants	(C4) (D1)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) al Imagery (C9)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3) Water Marks (I Sediment Deporting Drift Deposits (Algal Mat or C Iron Deposits (Surface Soil C	(A1) ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) tracks (B6) ible on Aerial 1	magery (B7	Water-Stal MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor of Reduced Iron on Reduction in Tile Stressed Plants	(C4) (D1)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) al Imagery (C9)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3) Water Marks (I Sediment Deporits (A1) Algal Mat or C Iron Deposits (Surface Soil C Inundation Vis Sparsely Vege	(A1) ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) iracks (B6) ible on Aerial 1 elated Concave	magery (B7	Water-Stal MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor of Reduced Iron on Reduction in Tile Stressed Plants	(C4) (D1)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) al Imagery (C9)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deporit Deposits (Algal Mat or C Iron Deposits (Surface Soil C Inundation Vis Sparsely Vege	(A1) ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial I otated Concave	magery (B7	Water-Stal MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 khizospheres alor of Reduced Iron n Reduction in Ti Stressed Plants blain in Remarks)	(C4) (Bled (D1)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) (C2) (C2) (C9) (LRR A) (D7)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3) Water Marks (I Sediment Deporit Deposits (Algal Mat or C Iron Deposits (Surface Soil C Inundation Vis Sparsely Vege Field Observatio Surface Water Pn	(A1) ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) tracks (B6) ible on Aerial 1 etated Concave	magery (B7 e Surface (B	Water-Stal MLRA 1, 2 Salt Crust Aquatic In' Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 khizospheres alor of Reduced Iron n Reduction in Ti Stressed Plants blain in Remarks)	(C4) (Bled (D1)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) al Imagery (C9)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deporits (I Algal Mat or C Iron Deposits (I Surface Soil C Inundation Vis Sparsely Vege Fleid Observatio Surface Water Pres	(A1) ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial 1 etated Concave	magery (B7 e Surface (B	Water-Stal MLRA 1, 2 Salt Crust Aquatic Inr Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 khizospheres alor of Reduced Iron n Reduction in Ti Stressed Plants blain in Remarks)	(C4) (Bled (D1)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) (C2) (C2) (C9) (LRR A) (D7)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3) Water Marks (I Sediment Deporits Algal Mat or C Iron Deposits (Surface Soil C Inundation Vis Sparsely Vege Fleid Observatio Surface Water Pn Water Table Pres Saturation Preser	(A1) ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial 1 etated Concave	magery (B7 e Surface (E	Water-Stal MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Ext	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 khizospheres alor of Reduced Iron n Reduction in Til Stressed Plants blain in Remarks)	(C4) (Bled (D1)	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) (C2) (C2) (C9) (LRR A) (D7)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deporting Drift Deposits (I) Algal Mat or Color Iron Deposits (I) Inundation Vision Sparsely Veget Field Observation Surface Water Private Present (Includes capillary)	(Minimum of (Minim	magery (B7 e Surface (E	Water-Stai MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp 7) Depth (Inche	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor) of Reduced Iron in Reduction in Til Stressed Plants blain in Remarks) es):	(C4) illed (D1) Wetlar	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) (C2) (C9) (C9) (LRR A) (D7)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deporting Drift Deposits (I) Algal Mat or Color Iron Deposits (I) Inundation Vision Sparsely Veget Field Observation Surface Water Private Present (Includes capillary)	(Minimum of (Minim	magery (B7 e Surface (E	Water-Stal MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Ext	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor) of Reduced Iron in Reduction in Til Stressed Plants blain in Remarks) es):	(C4) illed (D1) Wetlar	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) (C2) (C2) (C9) (C9) (LRR A) (D7)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deporting Drift Deposits (I) Algal Mat or C Iron Deposits (I) Surface Soil (I) Inundation Vision Sparsely Vege Field Observation Surface Water Private Present (Includes capillary	(Minimum of (Minim	magery (B7 e Surface (E	Water-Stai MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp 7) Depth (Inche	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor) of Reduced Iron in Reduction in Til Stressed Plants blain in Remarks) es):	(C4) illed (D1) Wetlar	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) (C2) (C9) (C9) (LRR A) (D7)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deportif Deposits (Algal Mat or C Iron Deposits (Surface Soil C Inundation Vis Sparsely Vege Field Observatio Surface Water Pres Water Table Pres Saturation Preser (includes capillar) rescribe Recorded	(Minimum of (Minim	magery (B7 e Surface (E	Water-Stai MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp 7) Depth (Inche	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor) of Reduced Iron in Reduction in Til Stressed Plants blain in Remarks) es):	(C4) illed (D1) Wetlar	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) (C2) (Imagery (C9) (LRR A) (D7)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deport Drift Deposits (I) Algal Mat or C Iron Deposits (I) Surface Soil (I) Inundation Vision Sparsely Vege Field Observation Surface Water Privater Table Press Saturation Preser (includes capillary	(Minimum of (Minim	magery (B7 e Surface (E	Water-Stai MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp 7) Depth (Inche	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor) of Reduced Iron in Reduction in Til Stressed Plants blain in Remarks) es):	(C4) illed (D1) Wetlar	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) (C2) (C2) (C9) (C9) (LRR A) (D7)
Vetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deportif Deposits (Algal Mat or C Iron Deposits (Surface Soil C Inundation Vis Sparsely Vege Field Observatio Surface Water Pressaturation Preser (includes capillar) escribe Recorded	(Minimum of (Minim	magery (B7 e Surface (E	Water-Stai MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp 7) Depth (Inche	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor) of Reduced Iron in Reduction in Til Stressed Plants blain in Remarks) es):	(C4) illed (D1) Wetlar	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) (C2) (C9) (C9) (LRR A) (D7)
Vetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I Sediment Deportif Deposits (Algal Mat or C Iron Deposits (Surface Soil C Inundation Vis Sparsely Vege Field Observatio Surface Water Pressaturation Preser (includes capillar) escribe Recorded	(Minimum of (Minim	magery (B7 e Surface (E	Water-Stai MLRA 1, 2 Salt Crust Aquatic In Hydrogen Oxidized F Roots (C3 Presence Recent Iro Soils (C6) Stunted or (LRR A) Other (Exp 7) Depth (Inche	ned Leaves (B9) 4, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor) of Reduced Iron in Reduction in Til Stressed Plants blain in Remarks) es):	(C4) illed (D1) Wetlar	Water-Stained Leaves (BS 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) (C2) (C9) (C9) (LRR A) (D7)

	THOM DATA FORM - Western I	viountains, Valleys, and Coast Region
Project/Site: Hart Ranch	city/county: Siski Vou Co	Sampling Date: 8/23/2011
Applicant/Owner: Hart Ranch Investigator(s): Andrea Rabe Landform (hillslope, terrace, etc.): hillsly	State: CA Samo	ding Point:
Investigator(s): Andrea Kabe	Section Township Range:	46N COM Section 2 12
Landform (hillslope, terrace, etc.): hillslope	Ocal relief /concave, conve	1314 N 3 N 3 CC 1, 2 + 3
Subregion (LRR): MLRA 22R	Lat-137 and Salar Contrave, conve	ex, none): COYNEX Slope (%): 5
Soil Map Unit Name: 153 00	Selles Salar Long: 11.6	Zie Zie Datum: NAM
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes X No	(If no, explain in Remarks.)
, and a degratation, don, or myoroid	207 INII SIODIICADIV dieturbad? Ara	"Morroni Circumentament V
Are Vegetation , Soil , or Hydrolo	Pgy ND naturally problematic?	(If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes	te map showing sampling poin	t locations, transects, important features, et
Hydric Soil Present?	100	
Wetland Hydrology Present?	No Sampled Area w	ithin a Wetland? Yes No
Remarks:	751	
TOTAL NO.		
	ditchbank	
	Crichoane	
VEGETATION - Hea scientific names	-Cul-ut	
VEGETATION - Use scientific names	or plants.	
Tron Stratum	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Rlot size:)	% Cover Species? Status	Number of Dominant Species /
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3		Species Across All Strata: (B)
4.		Percent of Deminent Constant
		That Are OBL, FACW, or FAC: 33(A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)	- Total Cove	Prevalence Index worksheet:
		1
2.		_Total % Cover of: Multiply by:
2		OBL species x 1 =
3.		FACW species x 2 =
4.		FAC species 40 x3 = 120
0		FACU species x 4 =
	= Total Cover	
Herb Stratum (Plot size:		UPL species 40 x5 = 200
1. Leunius Cinertuis	40 V FAC	Column Totals: 80 (A) 380 (B)
1. Leynus Cinertus 2. Rendorecireria spica 3. Bornus Actorum	tazo X UPL	Prevalence Index = B/A = 4.0
3. Branus tectorum	TO Y UPL	r revalorice ilitiex = D/A = // /
4.	1000	Lindrando dia Manatatan I. H
5.		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	Sear Crayleine	2 - Dominance Test is >50%
		3 - Prevalence index is ≤3.01
3	The state of the s	4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
0.		5 - Wetland Non-Vascular Plants1
1.	Control of the second	Problematic Hydrophytic Vegetation¹ (Explain)
	80 = Total Cover	
Voody Vine Stratum (Riot size:	- 1000 0076	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		po presant, unless disturbed or problematic.
		1875 L875A8-5
	as made a single	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation
6 Bare Ground in Herb Stratum		Present? Yes No _X
emarks:		
		1
		J
		1
		ı

SOIL			an profitie Pale	
Profile Description: (Describe to the de	oth needed to document the ind	icator or confirm	n the absence of indicators	.
Depth Matrix	Redox Feat		oc² Texture	Remarks
(inches) Color (moist) %	Color (moist) %	Type' L		140///01/10
0-10 104R6/2 100				
10-18 1042611 100			100m	
			<u> </u>	
¹Type: C=Concentration, D=Depletion, RN	I=Reduced Matrix. CS=Covered or	r Coated Sand G	rains. ² Location: PL=Pore	Lining, M=Matrix.
			Indicators for Problema	tic Hydric Soils ³ :
Hydric Soil Indicators: (Applicable to a		2.)		de riyano cono .
Histosol (A1)	Sandy Redox (S5)		2 cm Muck (A10)	TEO)
Histic Epipedon (A2)	Stripped Matrix (S6)	4 - 41 - 54 - 41	Red Parent Material (Very Shallow Dark St.	174) vřece (TE12)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Other (Explain in Ren	niace (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Ren	iaiks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		9	
Thick Dark Surface (A12)	Redox Dark Surface (F6)		³ Indicators of hydroph	lytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology mu	ist be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)		unless disturbed or pr	oblematic
Restrictive Layer (if present):				
Type:		Hydric Soll Pr	esent? Yes	_ No
Depth (inches):				
emarks:		<u> </u>		
<u> </u>		non	ndicathous_	·
INDBOLOGY				
Wetland Hydrology Indicators:	r check all that apply)		Secondary Indicators (2 or	more required)
Wetland Hydrology Indicators:	l; check all that apply) Water-Stained Leaves (B9) (except	Secondary Indicators (2 or Water-Stained Leaves	more required) (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required	Water-Stained Leaves (B9) (except	Secondary Indicators (2 or Water-Stained Leaves 4A, and 4B)	more required) (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B)	B9) (except	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10)	(B9) (MLRA 1, 2,))
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11))	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab	(B9) (MLRA 1, 2,)) le (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B	13)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab	(B9) (MLRA 1, 2,)) le (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor () 113) (C1)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10)	(B9) (MLRA 1, 2,)) le (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a) 113) (C1)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab	(B9) (MLRA 1, 2, D) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Roots (C3)) (13) (C1) along Living	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I	(B9) (MLRA 1, 2, D) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced In) (13) (C1) along Living on (C4)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A	(B9) (MLRA 1, 2, D) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Roots (C3)) (13) (C1) along Living on (C4)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I	(B9) (MLRA 1, 2, 0) ele (C2) erial Imagery (C9) 02)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 48) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Int Recent Iron Reduction in Soils (C6) Stunted or Stressed Plai) (C1) along Living on (C4) n Tilled	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5)	(B9) (MLRA 1, 2, D) le (C2) erial Imagery (C9) D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Int Recent Iron Reduction in Soils (C6) Stunted or Stressed Plat (LRR A)) (C1) (along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	(B9) (MLRA 1, 2,)) le (C2) erial Imagery (C9)))
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Int Recent Iron Reduction in Soils (C6) Stunted or Stressed Plai (LRR A) Other (Explain in Reman) (C1) (along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5)	(B9) (MLRA 1, 2,)) le (C2) erial Imagery (C9)))
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Int Recent Iron Reduction in Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Reman) (C1) (along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	(B9) (MLRA 1, 2,)) le (C2) erial Imagery (C9)))
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced Int Recent Iron Reduction in Soils (C6) Stunted or Stressed Plat (LRR A) Other (Explain in Reman) (C1) (along Living on (C4) n Tilled nts (D1)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	(B9) (MLRA 1, 2,)) le (C2) erial Imagery (C9)))
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Ropts (C3) Presence of Reduced Interpretation (C6) Soils (C6) Soils (C6) Stunted or Stressed Plate (LRR A) Other (Explain In Remark) Depth (Inches):) (C1) (C1) along Living on (C4) n Tilled rks)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 2) le (C2) erial Imagery (C9) C2) 6) (LRR A) ks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Ropts (C3) Presence of Reduced Interpretation (C6) Soils (C6) Soils (C6) Stunted or Stressed Plate (LRR A) Other (Explain In Remark) Depth (Inches):) (C1) (C1) along Living on (C4) n Tilled rks)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2,)) le (C2) erial Imagery (C9)))
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B Field Observations: Surface Water Present? Water Table Present? Yes No	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres a Roots (C3) Presence of Reduced In Recent Iron Reduction in Soils (C6) Stunted or Stressed Plai (LRR A) Other (Explain in Remand) Depth (inches):) (C1) (C1) along Living on (C4) n Tilled rks)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	(B9) (MLRA 1, 2, 2) le (C2) erial Imagery (C9) C2) 6) (LRR A) ks (D7)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Sescribe Recorded Data (stream gauge, mor	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Ropts (C3)) Presence of Reduced Interpretation (C6) Soils (C6) Soils (C6) Stunted or Stressed Plater (LRRA) Other (Explain In Remark) Depth (Inches): Depth (inches):) (C1) (C1) along Living on (C4) n Tilled nts (D1) rks) Wetlan	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock d Hydrology Present?	(B9) (MLRA 1, 2, 2) le (C2) erial Imagery (C9) C2) 6) (LRR A) ks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Ropts (C3)) Presence of Reduced Interpretation (C6) Soils (C6) Soils (C6) Stunted or Stressed Plater (LRRA) Other (Explain In Remark) Depth (Inches): Depth (inches):) (C1) (C1) along Living on (C4) n Tilled nts (D1) rks) Wetlan	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock d Hydrology Present?	(B9) (MLRA 1, 2, 2) le (C2) erial Imagery (C9) C2) 6) (LRR A) ks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Secribe Recorded Data (stream gauge, mor	Water-Stained Leaves (I MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Oxidized Rhizospheres (Ropts (C3)) Presence of Reduced Interpretation (C6) Soils (C6) Soils (C6) Stunted or Stressed Plater (LRRA) Other (Explain In Remark) Depth (Inches): Depth (inches):) (C1) (C1) along Living on (C4) n Tilled nts (D1) rks) Wetlan	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tab Saturation Visible on A Geomorphic Position (I Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock d Hydrology Present?	(B9) (MLRA 1, 2, 2) le (C2) erial Imagery (C9) C2) 6) (LRR A) ks (D7)

Project/Site: HAVER RANCH	City/County: Siskiyou C	8/22/2-1
Applicant/Owner: Hart Ranch	State: CA Same	Sampling Date: O/25/2010
Investigator(s): Andrea Rabe	Section, Township, Range:	oling Point: 320
Landform (hillslope, terrace, etc.): terra	Cel relief (concern conve	45N, R5W Sect 1,2+3
Subregion (LRR): MLRA 22.8	Lat: 122, 37993 Long: 41.6	ex, none): Slope (%):
	e silt loam	
Are climatic / hydrologic conditions on the site type	ical for this time of year? Yes Y No	(If no explain in Democratic)
Are Vegetation, Soil, or Hydrolog	NO significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrolog	y No naturally problematic?	(If needed, explain any answers in Remarks.)
	_	•
Hydrophytic Vegetation Present? Yes	map showing sampling poin	t locations, transects, important features, et
	No Sis the Sampled Area w	
187-41- of 1 had-store British	No Sampled Area w	rithin a Wetland? Yes No X
Remarks:		
	4	
	ony bastun).
VEGETATION AND AND	V T	
VEGETATION - Use scientific names of	of plants.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
2.		That Are OBL, FACW, or FAC: (A)
3.		Total Number of Dominant
		Species Across All Strata: (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		(700)
apling/Shrub Stratum (Plot size:)	= Total Cover	Presidence hade
apling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
		OBL species x 1 =
		FACW species x 2 =
		FAC species x 3 =
	= Total Cover	FACU species 60 x4= Zyo
erb Stratum (Plot size: 12)		UPL species 10 x5 = 50
Elymus Ilyanoides	60 Y FACU	Column Totals: (A)
Bromue Hectory	10 7 418	Prevalence index = B/A =
		Prevalence index = B/A =
		Hydrophytic Vegetation Indicators:
	- 42% The States	1 - Rapid Test for Hydrophytic Vegetation
	Service of the servic	2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.0¹
0	100 de 100 de 100 de 100 de 100 de 100 de 100 de 100 de 100 de 100 de 100 de 100 de 100 de 100 de 100 de 100 d	4 - Morphological Adaptations (Provide supporting
		data in Remarks or on a separate sheet)
		5 - Wetland Non-Vascular Plants ¹
	10 10 10 10 10 10 10 10 10 10 10 10 10 1	Problematic Hydrophytic Vegetation¹ (Explain)
	OO -= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
pody Vine Stratum (Plot Size:)		be present, unless disturbed or problematic.
		Section States
		part .
110	≃ Total Cover	Hydrophytic Vegetation
Bare Ground in Herb Stratum	į.	Present? Yes No X
	1	
marks:		

SOIL							ইটেৰোগাৰ্গি ইতাৰ	
Profile Desc	ription: (Describe	to the depth	needed to docu	ment the inc	licator or co	nfirm the a	bsence of indicators	
Depth	Matrix	•		Redox Fea	tures			
(inches)_	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Texture	Remarks
Q-VI	1042612	100					(Dam	
11-18	IDYR61	100					low	
	To f	<u>- 49 9 - </u>						
								
								
						"		
¹Type: C=C	oncentration, D=De	pletion, RM=F	Reduced Matrix, C	S=Covered o	or Coated Sa	nd Grains.	² Location: PL=Pore	Lining, M=Matrix.
Muddie Cel	I Indicators: (Appl	icable to all I	PRe unless off	erwise note	d.)	Ind	icators for Problema	tic Hydrlc Soils ³ :
Hyaric Sol	maicators: (Appi	ICADIC IO AII I			,	.,,,,,		-
Histoso			Sandy Redox (2 cm Muck (A10)	TEO\
Histic E	pipedon (A2)		Stripped Matrix	((S6)			Red Parent Material (174)
Black F	listic (A3)		Loamy Mucky		(except MLR	(A 1)	Very Shallow Dark Su	inace (ITIZ)
Hydrog	en Sulfide (A4)		_ Loamy Gleyed				Other (Explain in Ren	narks)
	ed Below Dark Surfa	ice (A11)	Depleted Matri				g	
	ark Surface (A12)		Redox Dark St	urface (F6)			3Indicators of hydroph	ytic vegetation and
	Mucky Mineral (S1)		Depleted Dark	Surface (F7)			wetland hydrology mu	
	Gleyed Matrix (S4)	_	Redox Depres	sions (F8)			unless disturbed or pr	oblematic
					1		<u></u>	
Postrictive I	ayer (if present):				{			,
	ayer (ir present).				Hydric So	Il Present?	Yes	No 🗸
Type: _				 _	i iyanc oo			
Depth (Inc	:hes):			·				
Remarks:					·			Ì
1100000								
1				1	A .			
					E 1			
				- MD1	ndica	tois		
<u> </u>				MD1	nd i ca	10.5		
		<u></u>	·	ND:	nd i ca	10.5		
HYDROLOG				MDI	ndica	to.s		
Wetland Hyd	rology Indicators:				ndica			
Wetland Hyd	rology Indicators:	ne required; c	heck all that apply	v)		Seco	ondary Indicators (2 or	more required)
Wetland Hyd		ne required; c	Water-Stai	y) ned Leaves (B9) (except	Seco	Vater-Stained Leaves	more required) (B9) (MLRA 1, 2,
Wetland Hyd Primary Indica	rology indicators: ators (minimum of o	ne required; c	Water-Stai	v)	B9) (except	Seco	Vater-Stained Leaves A, and 4B)	(B9) (MLRA 1, 2,
Wetland Hyd Primary Indica Surface W	rology Indicators: ators (minimum of or ater (A1)	ne required; c	Water-Stai	y) ned Leaves (B9) (except	Seco	Vater-Stained Leaves A, and 4B) Orainage Patterns (B10)	(B9) (MLRA 1, 2, D)
Wetland Hyd Primary Indica Surface W High Wate	rology Indicators: ators (minimum of or ater (A1) r Table (A2)	ne required; c	Water-Stai MLRA 1, 2 Salt Crust	y) ned Leaves (, 4A, and 4B (B11)	B9) (except	Seco	Vater-Stained Leaves I A, and 4B) Orainage Patterns (B10 Ory-Season Water Tab	(B9) (MLRA 1, 2,)) le (C2)
Surface W High Wate Saturation	rology Indicators: ators (minimum of or later (A1) or Table (A2) (A3)	ne required; c	Water-Stai MLRA 1, 2 Salt Crust Aquatic Inv	y) ned Leaves (, 4A, and 4B (B11) vertebrates (B	B9) (except	Seco	Vater-Stained Leaves A, and 4B) Orainage Patterns (B10)	(B9) (MLRA 1, 2,)) le (C2)
Wetland Hyd Primary Indica Surface W High Wate	rology Indicators: ators (minimum of or later (A1) or Table (A2) (A3)	ne required; c	Water-Stai MLRA 1, 2 Salt Crust Aquatic Inv	y) ned Leaves (, 4A, and 4B (B11) vertebrates (E) Sulfide Odor	B9) (except i) 313) (C1)	Seco	Vater-Stained Leaves (A, and 4B) Orainage Patterns (B10 Ory-Season Water Tab Saturation Visible on A	(B9) (MLRA 1, 2, 0) ele (C2) erial Imagery (C9)
Wetland Hyd Primary Indica Surface W High Wate Saturation Water Mai	rology Indicators: ators (minimum of or later (A1) or Table (A2) (A3) ks (B1)	ne required; c	Water-Stai MLRA 1, 2 Salt Crust Aquatic Inv Hydrogen Oxidized R	y) ned Leaves (, 4A, and 4B (B11) vertebrates (B) Sulfide Odor	B9) (except i) 313) (C1)	Seco	Vater-Stained Leaves I A, and 4B) Orainage Patterns (B10 Ory-Season Water Tab	(B9) (MLRA 1, 2, 0) ele (C2) erial Imagery (C9)
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TILLEAND DE LENNINA	TION DATA FORM - Western	Mountains, Valleys, and Coast Region
Project/Site: Hart Ranch	City/County Sicking D.	8/22/2-11
Applicant/Owner: Hart Ranch	Chycounty: 51371 Volt Co	Sampling Date: O16512010
Investigator(s): Annual Annual Annual	State: LA Samp	ling Point: 52
Investigator(s): Andrea Kabe	Section, Township, Range:	75N, K5W Sect 1,2+3
Subracion (I BB): M L. R.A. 220	Local relief (concave, conve	ex, none): Coroa ve Slope (%): 3
Soil Man Unit Name:	Lat: 1/4) 545941 Long: 41, 64	Datum: NAN \$3
Con trial Chill Harrie.	HP. SIRTERY IN	ARA/I alamaidianstaus
Are Vegetation	oical for this time of year? Yes X No	(If no, explain in Remarks.)
The regulation , Soil , or Hydrolo	gy (V) significantly disturbed? Are	"Normal Circumstances" present? Von X No.
The Vegetation, Soil, or Hydrolog	naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach air	a man abauda a a u II	16
Hydrophytic Vegetation Present? Yes	No Snowing sampling poin	t locations, transects, important features, etc.
Hydric Soil Present? Yes	No is the Sampled Area w	ithin a Wetland? Yes No No
Wetland Hydrology Present? Yes	No	ithin a Wetland? Yes No No
Remarks:		
No. 1 ac	_	
ONTO		
VEGETATION - Use scientific names	of plants.	
Tana Chankum (Dist a)	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
2.		Total Number of Dominant
3.		Species Across All Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.		_Total % Cover of: Multiply by:
2.		OBL species x1=
3.		FACW species x 2 =
4		
5		· · · · · · · · · · · · · · · · · · ·
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 12)		UPL species x 5 =
		Column Totals: (A) (B)
2.		Prevalence Index = B/A =
		- I TOTALION INGON - BIA -
		Hydrophytic Vegetation Indicators:
	18. 18. Self	[** ·
	is a costi A :	1 - Rapid Test for Hydrophytic Vegetation
	76 A 215776 AL	2 - Dominance Test is >50%
	250 July 1863	3 - Prevalence index is ≤3.01
		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
0		5 - Wetland Non-Vascular Plants ¹
1.	7.25	Problematic Hydrophytic Vegetation¹ (Explain)
	= Total Cover	
/oody Vine Stratum (Plot size:	- 1001 00461	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	1	
	12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	مادهن بيرخ و كالبرقاء الأد	Hydrophytic
Bare Ground in Herb Stratum	= Total Cover	Vegetation
	war.	Present? Yes No
emarks:	open water	a is ba
	i mai	@ a changabrup
No And	Donald	Mang apint
	11000 M 450	(A) a (A)

SOIL			হালেগান্য ইতার	
Profile Description: (Describe to the depth ne	eded to document the indi Redox Feat	cator or confirm	the absence of indicators.)
Depth Matrix (inches) Color (moist) %	Color (moist) %	Type' Lo	Texture	Remarks
	1241 45		laan	-
			Toan	
10-18 104KM,			TOWN	
	1		•	
	S			
¹ Type: C=Concentration, D=Depletion, RM=Red	uced Matrix, CS=Covered or	Coated Sand Gra	ains. ² Location: PL=Pore	Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRI	Rs. unless otherwise noted	1.3	Indicators for Problemat	tic Hydric Soils³:
	Sandy Redox (S5)	··• ,	2 cm Muck (A10)	
	Stripped Matrix (S6)		Red Parent Material (TF2)
	Loamy Mucky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Su	rface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Rem	narks)
	Depleted Matrix (F3)		3Indicators of hydroph	utin venetation and
	Redox Dark Surface (F6) Depleted Dark Surface (F7)		wetland hydrology mu	st be present.
	Redox Depressions (F8)		unless disturbed or pro	oblematic
Gallay Oleyed Madrix (0-1)	,			
Restrictive Layer (if present):			~	
Туре:		Hydric Soil Pres	sent? Yes X	No
Depth (Inches):	<u> </u>			
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:	k all that apply)		Secondary Indicators (2 or	more required)
	ck all that apply) Water-Stained Leaves (E		Secondary Indicators (2 or Water-Stained Leaves (more required) (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chec	ck all that apply) Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B)	39) (except	Water-Stained Leaves (4A, and 4B)	(B9) (MLRA 1, 2,
Wetland Hydrology Indicators:	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	39) (except	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10	(89) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B	39) (except - 13)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Table	(89) (MLRA 1, 2, 1) le (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (39) (except 13) C1)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10	(89) (MLRA 1, 2, 1) le (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (I Oxidized Rhizospheres a	39) (except 13) C1)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D	(B9) (MLRA 1, 2, I) le (C2) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (13) (except 13) C1) along Living	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Table	(B9) (MLRA 1, 2, I) le (C2) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B: Hydrogen Sulfide Odor (I) Oxidized Rhizospheres a Roots (C3)	13) (except 13) C1) along Living on (C4)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3)	(B9) (MLRA 1, 2, I) le (C2) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Irc Recent Iron Reduction In Soils (C6)	13) (except 13) C1) along Living on (C4) n Tilled	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D	(B9) (MLRA 1, 2, I) le (C2) erial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chee Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction In Solls (C6) Stunted or Stressed Plar	13) (except 13) C1) along Living on (C4) n Tilled	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5)	(B9) (MLRA 1, 2, I) le (C2) erial Imagery (C9) O2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chee Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Suffide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction In Soils (C6) Stunted or Stressed Plar (LRR A)	13) (except 13) C1) along Living on (C4) n Tilled ints (D1)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction In Solls (C6) Stunted or Stressed Plar	13) (except 13) C1) along Living on (C4) n Tilled ints (D1)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5)	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Suffide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction In Soils (C6) Stunted or Stressed Plar (LRR A)	13) (except 13) C1) along Living on (C4) n Tilled ints (D1)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Suffide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction In Soils (C6) Stunted or Stressed Plar (LRR A)	13) (except 13) C1) along Living on (C4) n Tilled ints (D1)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chee Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations:	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Suffide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction In Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark	13) (except 13) C1) along Living on (C4) n Tilled ints (D1)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) is (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Fleid Observations: Surface Water Present? Yes No	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Suffide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Inc Recent Iron Reduction In Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark	13) (except 13) C1) along Living on (C4) n Tilled onts (D1)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) is (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chee Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present?	Water-Stained Leaves (E MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B' Hydrogen Suffide Odor (I Oxidized Rhizospheres a Roots (C3) Presence of Reduced Iro Recent Iron Reduction In Soils (C6) Stunted or Stressed Plar (LRR A) Other (Explain in Remark	13) (except 13) C1) along Living on (C4) n Tilled onts (D1)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chee Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Fleid Observations: Surface Water Present? Water Table Present? Yes Water Table Present? Saturation Present?	Water-Stained Leaves (EMLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B'Hydrogen Suffide Odor (COXIDER COXIDER	13) (except 13) C1) along Living on (C4) n Tilled onts (D1)	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) is (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No	Water-Stained Leaves (EMLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B'Hydrogen Suffide Odor (COXIDER COXIDER	13) (except 13) C1) along Living on (C4) n Tilled onts (D1) ks) Wetland	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) is (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chee Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Fleid Observations: Surface Water Present? Water Table Present? Yes Water Table Present? Saturation Present?	Water-Stained Leaves (EMLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B'Hydrogen Suffide Odor (COXIDER COXIDER	13) (except 13) C1) along Living on (C4) n Tilled onts (D1) ks) Wetland	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) is (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No Saturation Present? (Includes capillary fringe) Yes No	Water-Stained Leaves (EMLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B'Hydrogen Suffide Odor (COXIDER COXIDER	13) (except 13) C1) along Living on (C4) n Tilled onts (D1) ks) Wetland	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) is (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; chee Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	Water-Stained Leaves (EMLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B'Hydrogen Suffide Odor (COXIDER COXIDER	13) (except 13) C1) along Living on (C4) n Tilled onts (D1) ks) Wetland	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) is (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Ves No Saturation Present? (Includes capillary fringe) Yes No	Water-Stained Leaves (EMLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B'Hydrogen Suffide Odor (COXIDER COXIDER	13) (except 13) C1) along Living on (C4) n Tilled onts (D1) ks) Wetland	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) is (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; cheen in the indicato	Water-Stained Leaves (EMLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B'Hydrogen Suffide Odor (COXIDER COXIDER	13) (except 13) C1) along Living on (C4) n Tilled onts (D1) ks) Wetland	Water-Stained Leaves (4A, and 4B) Drainage Patterns (B10 Dry-Season Water Tabl Saturation Visible on Ad Geomorphic Position (D Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummock	(B9) (MLRA 1, 2, 1) le (C2) erial Imagery (C9) D2) 6) (LRR A) is (D7)

Investigator(s): ACA RADE Landform (hillslope, terrace, etc.): 10 17 10 17 10 17 10 17 10 17 10 17 10 17 10 17 10 17 10 17 17 10 17	Local relief (concave, converged Lat: 1973, 375, 775, 775, 775, 775, 775, 775, 7	Iling Point: \$2.50 If N
VEGETATION – Use scientific names	litch panic I du	pastur
Tree Stratum (Plotsize:) 1 2 3 4	Absolute Dominant Indicator % Cover Species? Status = Total Cover	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A) (B)
1.	= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 =
1. <u> </u>	es 60 Y GALLY	Column Totals: (A) (B) Prevalence Index = B/A =
4	Charles and the Charles	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)
Noody Vine Stratum (Plot size:)	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6 Bare Ground in Herb Stratum	= Total Cover	Hydrophytic Vegetation Present? Yes No
Remarks:		

SOIL			<u> इंट्रामा विस्तित्य</u>	
Profile Description: (Describe to the dept	h needed to document the in Redox Fea	dicator or confir	m the absence of Indicator	'5.)
Depth Matrix (inches) Color (moist) %	Color (moist) %	Type	Loc ² Texture	Remarks
D-4 104R61Z 100	Ocion (mosey 71		Dam	
				<u></u>
11-18 104R61, 100		()		
		7.0		
	11			
				-
				<u> </u>
	7-1-1-2			
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered	or Coated Sand (Grains. ² Location: PL=Po	re Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all	I RRs. unless otherwise note	ed.)	Indicators for Problem	atic Hydric Soils ³ :
·	Sandy Redox (S5)	,	2 cm Muck (A10)	
Histosol (A1) Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material	(TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1)	(except MLRA 1) Very Shallow Dark S	Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Other (Explain in Re	emarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		31-diaptors of hydror	phytic vegetation and
Thick Dark Surface (A12)	Redox Dark Surface (F6) Depleted Dark Surface (F7	1	wetland hydrology n	nust be present.
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	,	unless disturbed or	problematic
Gailey Gloyde Mean (5.)		T		
Restrictive Layer (if present):				No X
Type:		Hydric Soil P	resent? Yes	
Depth (inches):		<u> </u>		
		····	 	····
IYDROLOGY Wetland Hydrology Indicators:			Secondary Indicators (2.6	or more required)
Wetland Hydrology Indicators:	check all that apply)	/RO\/evcent	Secondary Indicators (2 o	or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required;	Water-Stained Leaves	(B9) (except	Secondary Indicators (2 of Water-Stained Leaves	or more required) s (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1)	check all that apply) Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11)	(B9) (except	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B	s (89) (MLRA 1, 2, 10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required;	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (B) (B13)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B) Dry-Season Water Ta	s (89) (MLRA 1, 2, 10) able (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor	B) B13) r (C1)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B	s (89) (MLRA 1, 2, 10) able (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres	B) B13) r (C1)	Water-Stained Leaver 4A, and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3)	B) B13) r (C1) s along Living	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B) Dry-Season Water Ta	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres	B) B13) r (C1) s along Living Iron (C4)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6)	B) B13) r (C1) s along Living lron (C4) in Tilled	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position	s (B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl	B) B13) r (C1) s along Living lron (C4) in Tilled	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5	(B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl	B) (B13) (C1) s along Living (Iron (C4) in Tilled (lants (D1)	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3	(D2) (D2) (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl	B) (B13) (C1) s along Living (Iron (C4) in Tilled (lants (D1)	Water-Stained Leaver 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds ((D2) (D2) (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Rem	B) (B13) (C1) s along Living (Iron (C4) in Tilled (lants (D1)	Water-Stained Leaver 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds ((D2) (D2) (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Rem	B) (B13) (C1) s along Living (Iron (C4) in Tilled (lants (D1)	Water-Stained Leaver 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds ((D2) (D2) (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Rem	B) (B13) (C1) s along Living (Iron (C4) in Tilled (lants (D1)	Water-Stained Leaver 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds ((D2) (D2) (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Remi	B) (C1) s along Living Iron (C4) in Tilled lants (D1) arks)	Water-Stained Leaver 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummor	(D2) (D2) (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Salt Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Rem	B) (C1) s along Living Iron (C4) in Tilled lants (D1) arks)	Water-Stained Leaver 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds ((B9) (MLRA 1, 2, 10) sble (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Sait Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Remi	B) (C1) s along Living lron (C4) in Tilled lants (D1) arks) Wetlan	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummond	(B9) (MLRA 1, 2, 10) sble (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Sait Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Remi	B) (C1) s along Living lron (C4) in Tilled lants (D1) arks) Wetlan	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummond	(B9) (MLRA 1, 2, 10) sble (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Sait Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Remi	B) (C1) s along Living lron (C4) in Tilled lants (D1) arks) Wetlan	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummond	(B9) (MLRA 1, 2, 10) sble (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Describe Recorded Data (stream gauge, monitored)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Sait Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Remi	B) (C1) s along Living lron (C4) in Tilled lants (D1) arks) Wetlan	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummond	(B9) (MLRA 1, 2, 10) sble (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present?	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Sait Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Remi	B) (C1) s along Living lron (C4) in Tilled lants (D1) arks) Wetlan	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummond	(B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Cescribe Recorded Data (stream gauge, monitor)	Water-Stained Leaves MLRA 1, 2, 4A, and 4I Sait Crust (B11) Aquatic Invertebrates (Hydrogen Sulfide Odor Oxidized Rhizospheres Roots (C3) Presence of Reduced Recent Iron Reduction Solls (C6) Stunted or Stressed Pl (LRR A) Other (Explain in Remi	B) (C1) (C1) (C1) (C2) (Iron (C4) (In Tilled (Iants (D1) (Iarks) Wetlan (Dus inspections), in	Water-Stained Leaves 4A, and 4B) Drainage Patterns (B: Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D5 Raised Ant Mounds (Frost-Heave Hummond	(B9) (MLRA 1, 2, 10) able (C2) Aerial Imagery (C9) (D2)) 5) D6) (LRR A) cks (D7)

^	= Tresterin	mountains, valleys, and Coast Region
Project/Site: HAVE RANCH	city/county: Siskiyou C	8/23/2010
Applicativowner: Trour Salaria	Contact City	
Investigator(s): Andréa Rabe	Scattles Township Dawn	ling Point: 53a
Landform (hillstone terrace etc.):	Section, Township, Range:	45N, R5W Sect 1,2+3
Landform (hillslope, terrace, etc.): hill Sign	Local relief (concave, conve	ex, none): Convex Slope (%): 10
Subregion (LRR): MLRA 22R	Lat. 1301341 Long: 11.7	22705 Datum: NAN K3
Soil Map Chit Maine.	2011 St 1-6 100 mg	NIAN plane in the last of the
Are Vegetation	oical for this time of year? Yes X No	(If no, explain in Remarks.)
The Aederstion ' 2011 ' OL LIAGLOSO	99 INU Significantly disturbed? Are	"Normal Circumstances" process? Ves. Y
Are Vegetation , Soil , or Hydrolo	gy No naturally problematic?	(If needed, explain any answers in Remarks)
SUMMARY OF FINDINGS - Attach sit	te map showing sampling poin	t locations, transects, important features, etc
	140	
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No is the Sampled Area w	rithin a Wetland? Yes X No
Remarks:		
	Culo.	
	V. Wev	
VEGETATION LIne pointiffs where		
VEGETATION - Use scientific names	of plants.	
The Stantant (T)	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3.		Species Across Ali Strata: (B)
4		Percent of Dominant Species
		That Are OBL, FACW, or FAC: 100 (A/B)
1 -	= Total Cover	-
Sapling/Shrub Stratum (Plot size: / 0m2)		Prevalence Index worksheet:
1. Salix acuertana	80 Y FACW	
2.	JU 9 FALW	Total % Cover of: Multiply by:
3		OBL species x 1 =
3		FACW species 80 x2= 160
5.		FAC species x3 =
5		FACU species x 4 =
I the state of the	= Total Cover	UPL species x 5 =
Herb Stratum (Plot size;)		200
1.		Column Totals: 80 (A) (B)
2.		Prevalence Index = B/A = 2,0
3		
4		Hydrophytic Vegetation Indicators:
5	A CONTRACTOR OF THE PARTY OF TH	1 - Rapid Test for Hydrophytic Vegetation
6	Serve programs	2 - Dominance Test is >50%
7.		
3.		3 - Prevalence Index is ≤3.01
9.		4 - Morphological Adaptations (Provide supporting
10.		data in Remarks or on a separate sheet)
11.		5 - Wetland Non-Vascular Plants ¹
		Problematic Hydrophytic Vegetation ¹ (Explain)
Monda Market	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)	ł	be present, unless disturbed or problematic.
		\$ 10 A 18 A 18 A 18 A 18 A 18 A 18 A 18 A
	A Company of the Comp	the state of the s
	= Total Cover	nyarepnyae
% Bare Ground in Herb Stratum		Vegetation Present? Yes No
	1	169 T NO
Remarks:		

SOIL			Sampling Estate > 3 4
Profile Description: (Describe to the	e depth needed to document the inc Redox Fea	dicator or confirm the a	bsence of indicators.)
Depth Matrix (inches) Color (moist)	% Color (moist) %	Type¹ Loc²	Texture Remarks
(monor)			Sandy I Dam
0-11 104RG2 91			<u> MINASI INMINA</u>
11-18 10424/1 100	<u> </u>		
	9		
			
	0000000		
¹ Type: C=Concentration, D=Depletion	n, RM=Reduced Matrix, CS=Covered		² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable	to all LRRs, unless otherwise note	d.) Ind	icators for Problematic Hydric Soils ³ :
- '	Sandy Redox (S5)	,	2 cm Muck (A10)
Histosol (A1) Histic Epipedon (A2)	Stripped Matrix (S6)		Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1)	(except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	·	Other (Explain in Remarks)
Depleted Below Dark Surface (A			
Thick Dark Surface (A12)	Redox Dark Surface (F6)		3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)		wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	· · · · · · · · · · · · · · · · · · ·	unless disturbed or problematic
			4
Restrictive Layer (if present):		I budula Dail Descenti	Yes No
		Hydric Soil Present?	1es
Depth (inches):		<u> </u>	
YDROLOGY Wetland Hydrology Indicators:			
Primary Indicators (minimum of one req	uired; check all that apply)		ndary Indicators (2 or more required)
	Water-Stained Leaves (Vater-Stained Leaves (B9) (MLRA 1, 2,
Surface Water (A1)	MLRA 1, 2, 4A, and 4B		A, and 4B) Orainage Patterns (B10)
High Water Table (A2)	Salt Crust (B11)		Ory-Season Water Table (C2)
Saturation (A3)	Aquatic Invertebrates (E Hydrogen Sulfide Odor		Saturation Visible on Aerial Imagery (C9)
Water Marks (B1)	Oxidized Rhizospheres	(- · · ·	
Sediment Deposits (B2)	Roots (C3)		Seomorphic Position (D2)
Drift Deposits (B3)	Presence of Reduced I	ron (C4)	Shallow Aquitard (D3)
	Recent Iron Reduction	in Tilled	-101 (15-105)
Algal Mat or Crust (B4)	Soils (C6)		FAC-Neutral Test (D5)
	Stunted or Stressed Pla	ants (D1)	Raised Ant Mounds (D6) (LRR A)
Iron Deposits (B5)	(LRR A) Other (Explain in Remains)		Frost-Heave Hummocks (D7)
 Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery 		into) '	100(110000 (101111100110 (-1)
Sparsely Vegetated Concave Surface	ce (B8)		
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4.	Hydrophytic Vegetation Indicators:
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6. Set to set Marine 4	2 - Dominance Test is >50%
7.	3 - Prevalence Index is <3.01
8	4 - Morphological Adaptations (Provide supporting
9.	data in Remarks or on a separate sheet)
10.	5 - Wetland Non-Vascular Plants ¹
11	Problematic Hydrophytic Vegetation¹ (Explain)
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Woody Vine Stratum (Plot size:)	be present, unless disturbed or problematic.
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2.	1.5 Am 10.5 Am
= Total Cover	*iyai opiiytic
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Appendix C Ground-Level Color Photographs



Photo 1 Plot 22 facing east



Photo 2 Plot 26 facing north



Photo 3 Plot 21a facing north



Photo 4 Plot 21c



Photo 5 Plot 32 facing north



Photo 6 Plot 29c



Photo 7 Plot 28b



Photo 8 Plot 21c facing south



Photo 9 Plot 47a

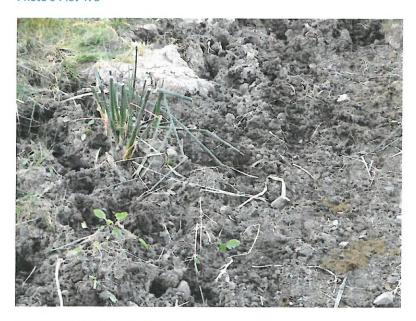


Photo 10 Plot 47b in October 2016



Photo 11 Plot 1a



Photo 12 west of Plot 21a, facing north



Photo 13 Plot 8a



Photo 14 Plot 6a



Photo 15 Plot 21b



Photo 16 Plot 38b



Photo 17 Plot 47c

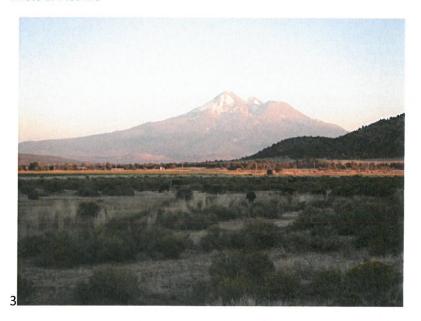


Photo 18 Plot 47c facing southeast



Photo 19 Plot 25 facing north



Photo 20 Plot 41



Photo 21 Plot 2c



Photo 22 Plot 2a



Photo 23 West of Plot 28b



Photo 24 Plot 53b



Photo 25 Plot 53b upslope of Shasta River



Photo 26 Plot 53a Shasta River



Photo 27 Plot 53a, upstream Shasta River



Photo 28 Plot 53a, downstream Shasta River



Photo 29 Plot 42



Photo 30 Plot 22 facing west/ northwest



Photo 31 Plot 51b facing plot 51a



Photo 32 From plot 51c, facing southwest



Photo 33 Plot 40
Photo 34 Intentionally left blank

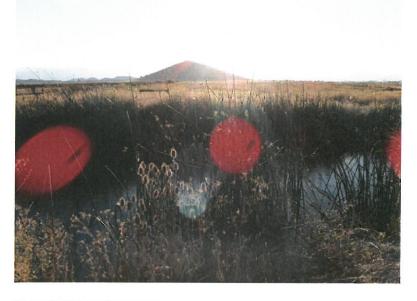


Photo 35 Plot 15b facing east



Photo 36 Plot 15a



Photo 37 Plot 15a facing north



Photo 38 Plot 17b, facing west



Photo 39 Plot 52a facing west



Photo 40 Plot 52a



Photo 41 Plot 5c facing northeast



Photo 42 Plot 9c facing northeast

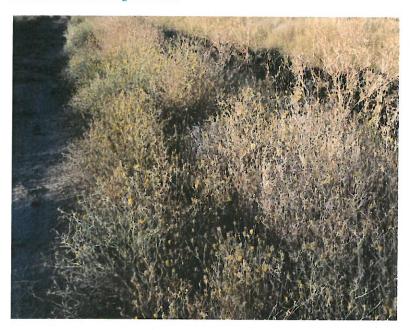


Photo 43 Plot 1a facing northwest



Photo 44 Eastern ditch bank at south end of MWCD Wetland 2



Photo 45 Facing north from south end of MWCD Wetland 2



Photo 46 Facing south from north end of Evans wetland 4



Photo 47 Plot 12b



Photo 48 Facing north from south end of Evans wetland 3



Photo 49 Plot 49

Appendix D References

- Environmental Laboratory. (1987). *Technical report Y-87-1* (Corps of Engineers Wetland Delineation Manual). Vicksburg, Mississippi: U.S. Army Corps of Engineers Waterways Experiment Station.
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- U.S. Army Corps of Engineers. (1992). *Clarification and interpretation memorandum of the* 1987 manual. Washington, DC: U.S. Government. 4pp.
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APPENDIX G

Cultural Resources Survey for the Hart Ranch. 2016 Native-X, Inc. November, 2016

Cultural Resource Survey for the Hart Ranch, 2016

Siskiyou County, California

2016



Prepared by:

John W. Jones (M.A., R.P.A.) Native-X, Inc. Archaeological Services Reno, Nevada

Prepared for:

Rabe Consulting Klamath Falls, Oregon

November 22, 2016



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INTRODUCTION

A cultural resource survey was conducted in Siskiyou County, California by Native-X, Inc. Archaeological Services in September, 2016. A linear survey of approximately 9.65 miles was conducted on private property (Hart Ranch) located near the Little Shasta River, in Little Shasta Valley (Figure 1 attached). The linear survey was completed in relation to the Hart Ranch Flow Enhancement Project. The overall project objectives are to (1) enhance flow in the Little Shasta River during critical coho salmon migration periods; (2) ensure long-term operation and maintenance of irrigation infrastructure for the Hart Ranch and the Montague Water Conservation District (MWCD); and (3) improve fish passage in the Little Shasta River. By improving agricultural water infrastructure, water management opportunities, and fish passage in the Little Shasta River, the project intends to improve water quality and coho salmon habitat in the Little Shasta River with a resultant permanent instream dedication of up to 1.5 cfs and permissive dedication of their remaining 22.7 cfs water right by the Hart Ranch while maintaining viable agricultural lands.

More specifically, the Hart Ranch Flow Enhancement Project consists of the following elements, the locations of which are identified in Figure 2 (attached).

- 1) Stockwater Improvement: This project component is located on the Hart Ranch along Harry Cash Road south of the Little Shasta River. This component of the project consists of (1) retrofitting of an existing groundwater well a new pump and motor; (2) installation of two new water storage tanks approximately 10,000 gallons in size; (3) installation of approximately 22,556 linear feet of underground PVC pipe connection to 20 stockwater troughs; (4) installation of approximately 7,500 linear feet of riparian grazing management fencing; and (5) riparian planting along the Little Shasta River for a distance of approximately 14,500 linear feet; and (6) approximately 14,850 linear feet of cross fencing in existing pastures.
- 2) Hart Ranch Main Pipeline Replacement: This component of the project includes replacement of the existing main canal earthen ditch and failing pipeline with approximately 7,280 linear feet of underground PVC pipe with risers, valves, flow meter, and connection to existing groundwater wells, for improved water management opportunities and flood irrigation of the eastern portion of the Ranch.
- 3) Montague Water Conservation District Canal Improvements: This component of the project is located along the Montague Water Conservation District (MWCD) main canal which bisects the Hart Ranch. The project's southern terminus is at Hart Road and is along the canal north.
- 4) Fish Passage Improvements: This component of the project includes (1) removal of the existing concrete dam, fish screen and old fish ladder walls along the Little Shasta River; (2) construction of approximately 105 linear feet of roughened channel with large boulder clusters and buttresses at a 2.5 3 percent grade, that provides fish passage opportunities; (3) modification of the agricultural diversion for the Hart Ranch; (4) construction of a new cast-in-place concrete diversion structure with fish screen and fish return bypass that meets current NOAA and CDFW fish protection criteria; and (5) revegetation of the site.

Native-X surveyed approximately 9.65 miles of proposed linear enhancements (pipeline routes) trough locations, stockwater feature locations, and the diversion structure for a total of about 77 acres. Survey and site recording was completed by John W. Jones (M.A., R.P.A.) who was assisted by Kyle Crebbin (B.A.). A segment of rock wall fence and a water diversion structure were recorded (HR01 and HR02 respectively). No isolated finds were recorded. Survey was conducted within Township 44N., Range 5W., Sections 1-3 and 11-14, as well as within Township 45N., Range 5W., Sections 25 and 34-

36. The project area is located on the USGS 7.5' Little Shasta (1984) and Solomons Butte (1983) quadrangles (see Figure 2 attached).

ENVIRONMENTAL SETTING

The project area is located in Little Shasta Valley, Sparse riparian vegetation is present along the irrigation ditches and canals within the proposed project area. The riparian vegetation along the irrigation canals consists of bulrush and cattails along with other sedges and rushes in a narrow band a few inches (1-8 inches) wide along the high water line of the canals. The canal banks are steep and do not allow for a riparian bench. The smaller irrigation ditches exhibit mostly grasses with few sedges and rushes (1-3 inches in width) at their ordinary water line. The Little Shasta River exhibits dense shrub and tree growth in the riparian area, with little to no understory. The shrubs include multiple species of willows.

The upland area around Dorris Hill and upslope toward the summit exhibit sparse sagebrush scrub with limited bunch grass cover (less than 25%). The area is rocky and exhibits areas of bare soil. The lower elevation areas below the slopes of Dorris Hill are fields are primarily permit pasture exhibiting pasture grasses or alfalfa fields used for hay production. Ground visibility in the lower areas was very poor to nonexistent. Elevation of the project area generally ranges from 2650 to 2800 feet above mean sea level.



Dense vegetation within the pastureland.



View from the saddle on Dorris Hill. Looking southeast.



Fenced pasture with vegetation and poor ground visibility.

CULTURAL SETTING

The project area lies within Shasta ethnographic territory. The ethnography of the Shasta has been summarized in many archaeological reports for the area including in Dixon 1907, Holt 1946, Kroeber 1976, and Silver 1978. Historically, the Shasta occupied areas in what is now California and Oregon. This includes present-day Siskiyou County in California and in Jackson and Klamath Counties in Oregon. The Shasta were divided primarily into four divisions that basically corresponded to topographic features: Klamath River Basin, Rogue River Valley, Scott Valley, and Shasta Valley close to where the current project is located (Vaughan 2014).

Employees of the Hudson Bay Company passed through the Shasta Valley beginning in the late 1820s. Siskiyou County was formed in 1852, having been originally part of Shasta and Klamath Counties. By the 1850s and 1860s several wagon roads ran through the area with the primary travel route being the Yreka Trail. The Yreka trail passes within a half-mile of the southern end of the project area. Yreka (the town) is the county seat and is approximately 12 air-miles west-northwest of the current project area. Closer is the small town of Montague at 6.8 air-miles west-northwest and the small community of Little Shasta is within a mile to the north. Little Shasta was settled in 1853, likely due to the good soils that occur in the valley. By the 1880s there existed a post office, flour mill, two school houses, two stores, and a church. The church, built in 1878, still stands tall and can be seen in the distance from many parts of the project area.

EXISTING DATA REVIEW AND RESEARCH DESIGN

Existing Data Review

A prefield records search was completed by the Northeast Center of the California Historical Resources Information System in Chico, California on September 12, 2016. Results of the records search indicate that no previous cultural resource surveys have occurred within the current project area. Additionally, it was discovered that no sites have been recorded within the project area. However, three previous surveys have and one geoarchaeological overview have been completed within a mile and three sites have been recorded also within a mile. Previous surveys and previously recorded sites within a mile are listed below.

Previously archaeological investigations include:

Jensen, Peter (Jensen & Associates)

1997 Archaeological Inventory Survey: Proposed Butler Subdivision and Development Project Area, 4208 Harry Cash Road, Little Shasta Valley, Siskiyou County, California. NEIC Report 001587

Meyer, Jack (Far Western Anthropological Research Group)

2013 A Geoarchaeological Overview and Assessment of Northeast California; Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways: Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties. NEIC Report 012349

Whiteman, Erik and Melinda Salisbury (Humboldt State University Foundation...)

2008 A Cultural Resources Investigation of the Little Shasta Fish Passage and Screening Project located in Siskiyou County, California. NEIC Report 010199

Wood, Heather (Natural Resources Conservation Service)

2012 Field Office Report of Cultural Resources Ground Survey Findings: Project #12FY47-0011. NEIC Report 012906

Table 1. Previously Recorded Sites within a Mile

Site/Resource Number	Site/Resource Description
CA-SIS-2253	Lithic Scatter
CA-SIS-2254	Historic Rock Wall
Unknown	Yreka Trail

Research Design

The research design for this project was simple and straight forward. Survey a 20-meter wide corridor along the total length of the proposed linear project area (9.65 miles) and survey a small water diversion structure for a total of approximately 77 acres.

FIELD INVENTORY

The project area was given complete survey coverage on September 30, 2016. Pedestrian transects, oriented by GPS and compass, as well as canal feature, were walked 20 meters or less apart until the entire project length, 20 meters wide, was covered (9.65 miles, 77 acres total). A small area less than ½ acre was also viewed while recording a water diversion structure on the Little Shasta River. Survey areas are shown on Figure 2 (attached).

Overall, ground visibility ranged from good to totally nonexistent. Grass cover in some areas was too dense to view mineral soil. When located, areas exhibiting mineral soil like rodent backdirt mounds, ground disturbances due to ranching, and roadbeds were surveyed more intensely. Much of the linear survey area was along an existing canal and thus heavily disturbed. Other disturbances include fencing, flood irrigation, cultivation, vehicle use, and extensive use as pasture.

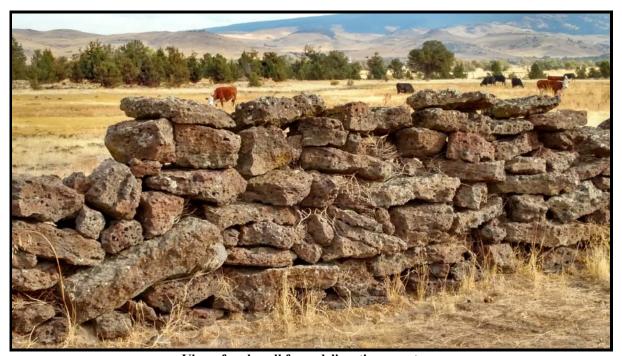
FINDINGS

Two sites were located and recorded during the course of the survey. Site HR01 is a segment of historic rock wall fence and site HR02 is a water diversion structure located on the Little Shasta River, at the origin of the Montague Water Conservation District "Main Ditch" (MWCD). The rock wall fence (HR01) remains unevaluated to the National Register of Historic Places (NRHP) because it continues for an unknown distance beyond the project area and is thus not fully recorded. The water diversion structure (HR02) is recommended not eligible for the NRHP. Sites are shown on Figure 2 (attached). Site records are included as Appendix A.

Site HR01 (Historic Rock Wall Fence)

The site consists of an extensive rock wall fence that is still used to define the edges of pastures located just north of Dorris Hill. No major breaches except for the gate was observed. Another segment of the wall continues outside of the current project area to the northwest. This wall, unlike many others in

the region, is not mentioned on the USGS topographic map. Constructed of large bounders/stones (three to eight courses), it currently ranges from about two to five feet in height and is one and one-half to two feet wide. No posts or wire were noted except at the gate. The wall is likely historic but has continued to be used and maintained through the modern era. Other rock walls with post and wire fencing on top were observed on the ranch, also still in use.



View of rock wall fence delineating a pasture.

National Register of Historic Places Evaluation Recommendation

This site has not been fully recorded. It continues for unknown distances outside of the current project area and thus remains unevaluated to the NRHP.

Site HR02 (Historic Water Diversion Structure)

The site consists of a mostly concrete diversion structure located on the Little Shasta River about 1.3 air-miles northeast of the small community of Little Shasta, in Siskiyou County. The structure diverts water into a ditch (the Montague Water Company Ditch aka the Haight/Hart Ditch) which flows southeast past the Little Shasta Cemetery and south into Little Shasta Valley. The structure appears to be mostly historic in nature but has been maintained and modified in the modern era. The only historic documentation found relating to the structure and ditch is a letter dated October 5, 1938 from the State of California Department of Natural Resources, Division of Fish and Game to Mr. George M. Haight and Ray Hart. The letter states that a survey had been completed and a fish screen located on the ditch was found to be nonfunctional and needed to be replaced. The description of a proposed replacement matches that which currently exists at the site. The ditch, diversion, and fish screen were obviously all present prior to the 1938 letter. Exactly when the current configuration was constructed is unknown. Concrete construction methods suggest the use of both plank forms (older) and plywood forms (newer). Circular and square rebar and hexagonal nuts versus square nuts also suggest different time periods. There is also a modern solar panel, junction box, and flow meter (gauging station). The feature appears to have been in relatively continuous use with maintenance and modifications occurring as needed since its original construction. Site integrity has been seriously compromised.



View of headgate, retaining wall, and plastic-covered plank check dam.

Current description also includes: There is a plank check dam with slots in concrete retaining walls on either side of the small river channel is present and allows for the raising and lowering of the water level and to divert it through a metal headgate, through the fish screen, and into the ditch. The concrete feature and retaining walls are substantial. The older concrete work utilized milled lumber forms and can be seen most easily in the concrete holding the headgate and its adjacent retaining walls. Two smaller wall segments have shifted either due to water flow or when the feature was being modified. The newer concrete work utilized plywood forms. This is especially evident along the curved concrete wall used to help divert the water into the overflow/fish return pipe. A curved segment of circular rebar set vertically in the wall may be an anchor point and/or may indicate that the particular segment was actually pre-cast in a different location and mechanically lowered into its current position. Also present is a parallel steel bar fish screen, an undershot water wheel used to mechanically clean the fish screen and allow the flow of water through the system into the ditch, and additional concrete to anchor them and to direct water flow. No historic artifacts were found in conjunction with the diversion feature.



View of undershot water wheel with attached fish screen cleaning mechanism, overflow area leading to fish return pipe, and the modern gauging station.

National Register of Historic Places Evaluation Recommendation

The site is recommended as not eligible to the NRHP due to poor integrity. While the structure fulfills a historic function and has historic concrete elements, it has been heavily modified in the modern era with both modern concrete and modern mechanical components. The modern gauging station is also an intrusive element; even though it is an equivalent of a historic function. Too much of the structure has changed (with modern equivalents, but has changed none-the-less). As such, the structure has greatly diminished values of workmanship, design, feeling, and materials. Additionally, the structure would be a non-contributing component of any larger, associated irrigation system that may be eligible.

SUMMARY AND RECOMMENDATIONS

The Hart Ranch project area was given complete survey coverage on September 30, 2016 by Native-X, Inc. Archaeological Services. Pedestrian transects, oriented by GPS and compass, as well as canal feature, were walked 20 meters or less apart until the entire project length, 20 meters wide, was covered (approximately 9.65 miles, 77 acres total). A small area less than ½ acre was also viewed while recording a water diversion structure on the Little Shasta River.

Two sites were located and recorded during the course of the survey. Site HR01 is a segment of historic rock wall fence and site HR02 is a water diversion structure located on the Little Shasta River, at the origin of the Montague Water Conservation District "Main Ditch" (MWCD). The rock wall fence (HR01) remains unevaluated to the National Register of Historic Places (NRHP) because it continues for an unknown distance beyond the project area and is thus not fully recorded. The water diversion structure (HR02) is recommended not eligible for the NRHP.

Recommendation Summary

Site HR01: The project calls for the installation of a pipe through this rock wall fence. Since the proposed route is through the existing wire gate and will not disturb the linear rock feature, there will be no affect to the site. This practice is recommended.

Site HR02: The project proposal includes the removal of this historic water diversion structure and to create a new one a short distance upstream that will fulfill the same function. This will allow for better fish passage along the Little Shasta River. The site is recommended as not eligible to the NRHP due to poor integrity. While the structure fulfills a historic function and has historic concrete elements, it has been heavily modified in the modern era with both modern concrete and modern mechanical components. The modern gauging station is also an intrusive element; even though it is an equivalent of a historic function. Too much of the structure has changed (with modern equivalents, but has changed none-the-less). As such, the structure has greatly diminished values of workmanship, design, feeling, and materials. Additionally, the structure would be a non-contributing component of any larger, associated irrigation system that may be eligible.

It is recommended that the proposed work as defined will not affect any significant historic properties pursuant to 36 CFR Part 800.4 (d)(1). This report satisfies the cultural resource requirements for this project under CEQA. If during project implementation unrecorded cultural material is observed, it is recommended that project activities cease in the area of the find and that a qualified archaeologist be contacted to assess its significance.

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2014 Archaeological Reconnaissance for the Shasta River Riparian Protection and Enhancement Project by the Shasta Valley Resource Conservation District at Hidden Valley Ranch, Siskiyou County, California. Report on file with the Northeast Information Center, Chico. NEIC Report Number 012342.

ATTACHED FIGURES

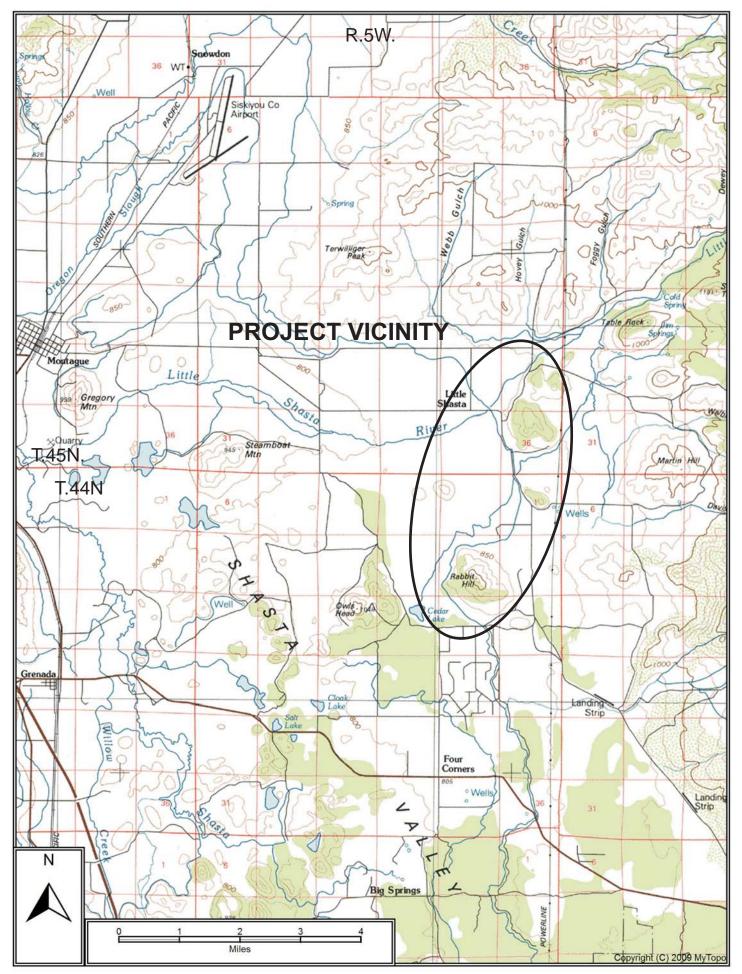
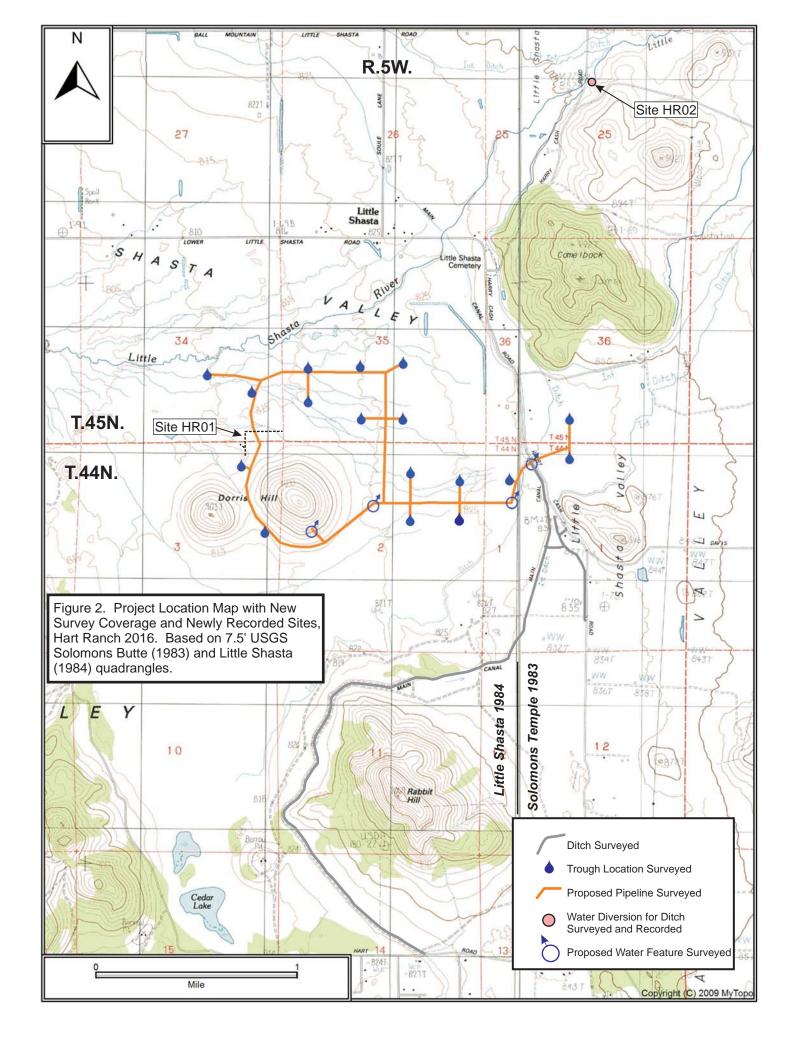


Figure 1. Project Vicinity Map, Hart Ranch 2016. Based on USGS 1:100,000 Yreka 1979 quadrangle.



APPENDIX A

Site Records for Newly Recorded Sites

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # HRI # Trinomial

NRHP Status Code

Other Listings Review Code

Reviewer

Date

	 1101101101	2440
Page 1 of 1		*Resource Name or #: HR01

P1. Other Identifier: None

*P2. Location: ☑ Not for Publication ☐ Unrestricted *a. County: Siskiyou

*b. USGS 7.5' Quad: Little Shasta, CA Date: 1984

SE 1/4 of SE 1/4 of SE 1/4 of Section 34, T.45N., R.5W. M.D. **BM.** SW 1/4 of SE 1/4 of SE 1/4 of Section 34, T.45N., R.5W NW 1/4 of NE 1/4 of NE 1/4 of Section 3, T.44N., R.5W

c. Address: NA

d. UTM: Zone: 10; 549789 mE x 4616375 mN (NAD83) (GPS) (At Gate)

e. Other Locational Data:

From the intersection of Soule Lane and Lower Little Shasta Road in the community of Little Shasta, travel east then south on Lower Little Shasta Road. In 0.6 miles, the road turns into Harry Cash Road (near Little Shasta Cemetery). Continue south on Harry Cash Road for approximately 0.85 miles. Turn right and go west on the Hart Ranch access road for 0.5 miles to the ranch buildings. From here, travel northwest across the ranch pastures for just over 1.5 miles (skirting Dorris Hill on its eastern flank). Roads in this area are subject to change. The segment of wall recorded herein is located north of the Dorris Hill saddle about 0.35 miles.

*P3a. Description: The site consists of an extensive rock wall fence that is still used to define the edges of pastures located just north of Dorris Hill. No major breaches except for the gate was observed. Another segment of the wall continues outside of the current project area to the northwest. This wall, unlike many others in the region, is not mentioned on the USGS topographic map. Constructed of large bounders/stones (three to eight courses), it currently ranges from about two to five feet in height and is one and one-half to two feet wide. No posts or wire were noted except at the gate. The wall is likely historic but has continued to be used and maintained through the modern era. Other rock walls with post and wire fencing on top were observed on the ranch, also still in use

The site has not been fully recorded (it continues for unknown distances outside of the current project area) and thus remains unevaluated to the NRHP.

*P3b. Resource Attributes: AH11 (rock wall fence)

*P4. Resources Present: □Building □Structure □Object ☑Site □District □Element of District □Other

P5a. Photo or Drawing: See attached photos

P5b. Description of Photo: See attached

*P6. Date Constructed/Age and Sources: ☑Historic □Prehistoric □Both

*P7. Owner and Address: Hart Ranch

*P8. Recorded by: John W. Jones (M.A., R.P.A.), Native-X, Inc.

*P9. Date Recorded: September 30, 2016

*P10. Survey Type: Reconnaissance

*P11. Report Citation: Cultural Resource Survey for the Hart Ranch, 2016, Siskiyou County, California

*Attachments: □NONE ☑Location Map □Sketch Map □Continuation Sheet □Building, Structure, and Object Record □Archaeological Record □District Record □Linear Feature Record □Milling Station Record □Rock Art Record □Artifact Record ☑ Photograph Record □ Other (List):

DPR 523A (1/95) *Required information

Primary # HRI No# Trinomial:

*Resource No.: HR01



Site HR01. Roll Hart-01, Frame 01. View of post and wire gate in the rock wall fence. View is to the north. 549792 mE x 4616364. 9/30/2016



Site HR01. Roll Hart-01, Frame 02. Rock wall in distance west of gate after it turns south. View is at 256 degrees. 549792 mE x 4616364 mN. 9/30/2016

Primary # HRI No# Trinomial:

*Resource No.: HR01



Site HR01. Roll Hart-01, Frame 03. Rock wall as it goes east from the gate.

Note how has it has deteriorated (fallen rocks) and the cows in the pasture beyond.

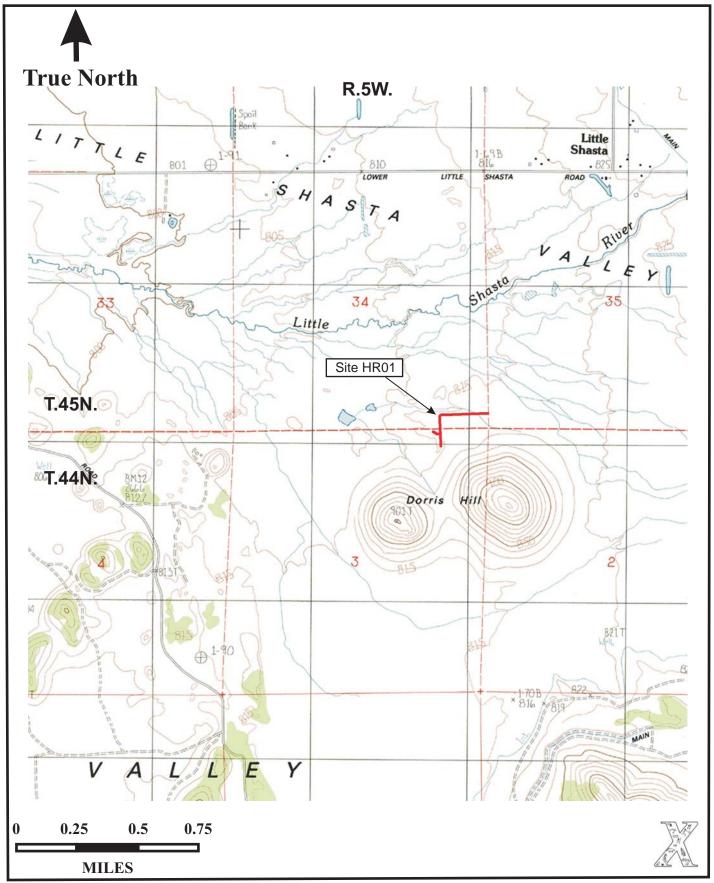
View is at 98 degrees. 549792 mE x 4616364 mN. 9/30/2016



Site HR01. Roll Hart-01, Frame 04. Closeup of rock wall. Shows construction. View 350 degrees. 549818 mE x 4616377 mN. 9/30/2016

Resource Name or #: HR01

Map Name: Little Shasta, CA Scale: 1:24,000 Date of Map: 1984



State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # HRI # Trinomial

NRHP Status Code

Other Listings Review Code

Reviewer

Date

Page 1 of 1 *Resource Name or #: HR02

P1. Other Identifier: None

*P2. Location: ☑ Not for Publication ☐ Unrestricted *a. County: Siskiyou

*b. USGS 7.5' Quad: Solomons Temple, CA Date: 1983

SW 1/4 of NW 1/4 of NE 1/4 of Section 25, T.45N., R.5W. M.D. BM.

c. Address: NA

d. UTM: Zone: 10; 552448 mE x 4619169 mN (NAD83) (GPS) (At Solar Panel).

e. Other Locational Data:

From the intersection of Soule Lane and Lower Little Shasta Road in the community of Little Shasta, travel east then south on Lower Little Shasta Road. In 0.6 miles, the road turns into Harry Cash Road (near Little Shasta Cemetery). Turn left at the cemetery and follow Harry Cash Road northeast for approximately 1.1 miles to where it crosses Little Shasta River. The site is visible to the right (east) of the road just prior to reaching the river. The site is about 40 meters east of the road.

*P3a. Description: The site consists of a mostly concrete diversion structure located on the Little Shasta River about 1.3 air-miles northeast of the small community of Little Shasta, in Siskiyou County. The structure diverts water into a ditch (the Montague Water Company Ditch aka the Haight/Hart Ditch) which flows southeast past the Little Shasta Cemetery and south into Little Shasta Valley. The structure appears to be mostly historic in nature but has been maintained and modified in the modern era. The only historic documentation found relating to the structure and ditch is a letter dated October 5, 1938 from the State of California Department of Natural Resources, Division of Fish and Game to Mr. George M. Haight and Ray Hart. The letter states that a survey had been completed and a fish screen located on the ditch was found to be nonfunctional and needed to be replaced. The description of a proposed replacement matches that which currently exists at the site. The ditch, diversion, and fish screen were obviously all present prior to the 1938 letter. Exactly when the current configuration was constructed is unknown. Concrete construction methods suggest the use of both plank forms (older) and plywood forms (newer). Circular and square rebar and hexagonal nuts versus square nuts also suggest different time periods. There is also a modern solar panel, junction box, and flow meter (gauging station). The feature appears to have been in relatively continuous use with maintenance and modifications occurring as needed since its original construction. Site integrity has been seriously compromised.

Current description also includes: There is a plank check dam with slots in concrete retaining walls on either side of the small river channel is present and allows for the raising and lowering of the water level and to divert it through a metal headgate, through the fish screen, and into the ditch. The concrete feature and retaining walls are substantial. The older concrete work utilized milled lumber forms and can be seen most easily in the concrete holding the headgate and its adjacent retaining walls. Two smaller wall segments have shifted either due to water flow or when the feature was being modified. The newer concrete work utilized plywood forms. This is especially evident along the curved concrete wall used to help divert the water into the overflow/fish return pipe. A curved segment of circular rebar set vertically in the wall may be an anchor point and/or may indicate that the particular segment was actually pre-cast in a different location and mechanically lowered into its current position. Also present is a parallel steel bar fish screen, an undershot water wheel used to mechanically clean the fish screen and allow the flow of water through the system into the ditch, and additional concrete to anchor them and to direct water flow. No historic artifacts were found in conjunction with the diversion feature.

The site is recommended as not eligible to the NRHP due to poor integrity. While the structure fulfills a historic function and has historic concrete elements, it has been heavily modified in the modern era with both modern concrete and modern mechanical components. The modern gauging station is also an intrusive element; even though it is an equivalent of a historic function. Too much of the structure has changed (with modern equivalents, but has changed none-the-less). As such, the structure has greatly diminished values of workmanship, design, feeling, and materials. Additionally, the structure would be a non-contributing component of any larger, associated irrigation system that may be eligible.

of any larger, associated irrigation system that may be eligible.
*P3b. Resource Attributes: AH6 (water diversion), AH8 (water conveyance)
*P4. Resources Present: □Building □Structure □Object ⊠Site □District □Element of District □Other
P5a. Photo or Drawing: See attached photos
P5b. Description of Photo: See attached
*P6. Date Constructed/Age and Sources: ⊠Historic □Prehistoric □Both
*P7. Owner and Address: Private
*P8. Recorded by: John W. Jones (M.A., R.P.A.), Native-X, Inc.
*P9. Date Recorded: September 30, 2016
*P10. Survey Type: Reconnaissance
*P11. Report Citation: Cultural Resource Survey for the Hart Ranch, 2016, Siskiyou County, California

*Attachments: □NONE ৷ ⊠Location Map . ☑Sketch Map □Continuation Sheet □Building, Structure, and Object Record

□Artifact Record ☑ Photograph Record □ Other (List):

DPR 523A (1/95)

*Required information

□Archaeological Record □District Record □Linear Feature Record □Milling Station Record □Rock Art Record





DIVISION OF FISH AND GAME, Department of Natural Resources,

State of California, Ferry Building, SAN FRANCISCO, CALIF. Mr. Ray Hart

Montague, Calif.

Frank F. Merriam Cobernor

FISH AND GAME COMMISSION

DR. E. C. MOORE, PRESIDENT LOS ANGELES

> NEWTON G. BOOTH HARBIN SPRINGS

RAYMOND GREY TAFT

EARL MCKENZIE RED BLUFF

SAN FRANCISCO



GEORGE D. NORDENHOLT DIRECTOR OF NATURAL RESOURCES

HERBERT C. DAVIS EXECUTIVE OFFICER DIVISION OF FISH AND GAME

STATE OF CALIFORNIA DEPARTMENT OF NATURAL RESOURCES

Division of Hish and Game

FERRY BUILDING SAN FRANCISCO

October 5th, 1938

Mr. George M. Haight

Mr. Ray Hart

Montague, Calif.

S-1247

Gentlemen -

Recently a survey was made of a ditch taking water from Little Shasta River, and jointly owned or used by yourselves. This survey was for the purpose of replacing a fish screen which had heretofore been installed in this ditch and now not functioning. The work contemplated would be at Commission expense.

It is proposed to install a parallel steel bar screen, with the spacing 1/4" apart, said bars to be cleaned by a device operated by a power wheel set below the bars, and all set within a concrete box which would be about 301 from the head of the ditch. As the construction will be of a very substantial nature it is believed that operation and maintenance expense will be at a minimum and may logically be considered in the future should the necessity erise.

Before we can proceed with this work it will be necessary for you to give your consent by dating and signing one of these copies and returning to this office. We will appreciate your prompt attention to this as it will materially assist us in planning our work.

Should there be other owners or leasers in this ditch. we would like their names and addresses; or, they may also sign one of the copies and return to us.

J. Spencer, Chief Bureau of Hydraulics



Site HR02. Roll Hart-01, Frame 06. Overview. Shows diversion structure with concrete retaining walls, undershot water wheel (allows for mechanical cleaning of fish screen), fish screen, and headgate. View 64 degrees.

552448 mE x 4619169 mN. 9/30/2016



Site HR02. Roll Hart-01, Frame 07. Overview of south end of diversion structure. Diversion ditch is to right of water wheel. Flow meter and solar panel is at far right. View 160 degrees.

552448 mE x 4619175 mN. 9/30/2016



Site HR02. Roll Hart-01, Frame 08. View of diversion structure with fish screen on right and headgate in background, middle. View 170 degrees. 9/30/2016.



Site HR02. Roll Hart-01, Frame 09. North end of diversion structure showing concrete work, headgate, and wheel. Milled lumber forms were used when this part of the structure was built. View 164 degrees. 9/30/2016.



Site HR02. Roll Hart-01, Frame 13. Closeup showing concrete work and where the fish screen is anchored to it. View 104 degrees. 9/30/2016.



Site HR02. Roll Hart-01, Frame 14. Water wheel mechanism where it connects to fish screen. View 80 degrees. 9/30/2016.



Site HR02. Roll Hart-01, Frame 15. View of overflow channel. Flows into a pipe just below the water surface.

This pipe was likely the fish return pipe.

View 318 degrees. 9/30/2016.



Site HR02. Roll Hart-01, Frame 16. Overview. 9/30/2016.



Site HR02. Roll Hart-01, Frame 17. View of flow solar panel with junction box. Connects to flow meter at surface on right.

Site datum.

9/30/2016

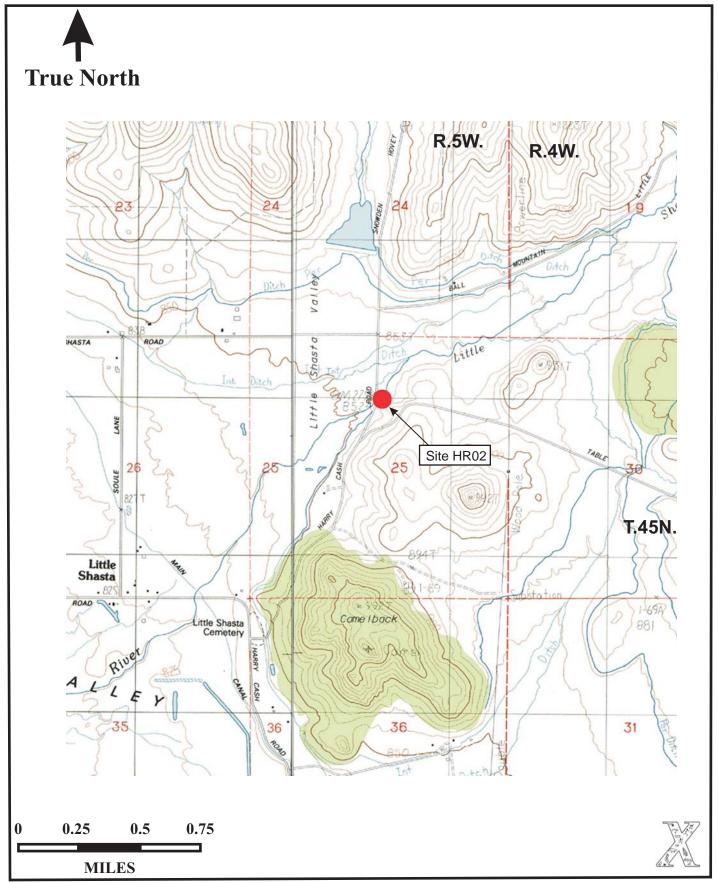
Feet

Water Flow

LOCATION MAP Trinomial

Resource Name or #: HR02

Map Name: Solomons Temple, CA Scale: 1:24,000 Date of Map: 1983



APPENDIX H

Little Shasta River Fish Passage Project:
Bridge Impact Hydraulic Assessment.
Cascade Stream Solutions
October, 2016

Little Shasta River Fish Passage Project: **Bridge Impact Hydraulic Assessment**

October, 2016



Prepared by: Joey Howard, PE Cascade Stream Solutions, LLC 295 East Main St, Ashland, Oregon 97520





1.0 Introduction

Trout Unlimited is proposing to improve fish passage and screening at the Hart water diversion on the Little Shasta River. The existing dam is located about 120 feet upstream of the Harry Cash Bridge crossing the Little Shasta River. The project extends along the creek and floodplain beginning about 20 feet upstream and ending about 200 feet upstream of the bridge. The work includes removing the existing flashboard dam and fish screen, constructing a roughened channel and new fish screen that meets current California Department of Fish and Wildlife and National Marine Fisheries Services standards. Joey Howard, while working at Northwest Hydraulic Consultants, was principal in charge of the design. As principal of Cascade Stream Solutions, he is providing engineering and inspection services implementation.

This document briefly summarizes hydraulic analyses conducted to assess potential projects on the bridge and water surface elevations.

2.0 Topographic Data and Datums

The survey of the existing structures and the local topography is based on surveys completed by North State Land Surveying in association with NHC in April and May of 2009. The surveys are based on the NAVD 1988 vertical datum and NAD 1983 horizontal datum. Elevations referenced in this report are in the NAVD 1988 datum, unless otherwise specified.

3.0 Project Site Watershed Characteristics

The project site watershed is 68 square miles in size and includes the northerly portion of Goosenest Mountain, southerly portion of Willow Creek Mountain, and westerly portion of Ball Mountain. The watershed's elevation ranges from high of 8280 feet at the Peak of Goosenest Mountain to a low of 2810 feet at the Hart diversion.

Mean annual precipitation ranges from 18 inches near the western portion of the watershed to 35 inches at foothill in the middle of the watershed (Siskiyou County, 1974). The spatially averaged mean annual precipitation for the watershed is 29.8 inches.

Flow to the project site is mainly influenced by the porous volcanic soils, and irrigation diversion structures. Significant tributaries to the Little Shasta River upstream of the Hart Diversion include Foggy Gulch, Dewey Gulch, and Dry Creek.

The Little Shasta River generally flows from east to west in the vicinity of the Hart and Musgrave diversions. The main channel is about 30 feet wide and ranges in depth from 2 to 5 feet as it flows through the valley. The valley bottom is about 1000 feet wide and is dissected by multiple flood channels. The valley slopes at about 1.3 percent.

The Little Shasta River has experienced several large flood events since the area was settled in the 1840's. Large floods since 1950 occurred in 1955, 1964, 1981, 1997, and 2005. These flows inundated most of the valley bottom and overtopped Harry Cash Road. During large flood events, the extent of

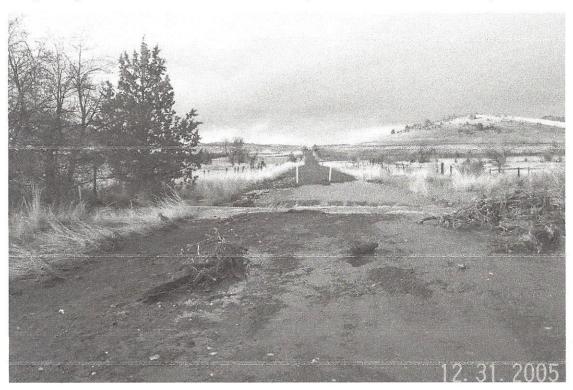


flooding across Harry Cash Road can extend from just south of the mail boxes near Ball Mountain Road to several hundred feet south of the Little Shasta Bridge at Harry Cash Road.

Large floods are generally produced by rain on snow events and have frequently occurred in late December and early January. The largest floods since 1950 have occurred in 1955 and on December 22, 1964. The main channel moved laterally during both these events. The US Army Corps of Engineers assisted local landowners following the 1955 flood event in relocating the main channel to its pre-flood alignment. In 1964, the United States Geologic Survey recorded a peak discharge of 5910 cfs at the Little Shasta River near Montague stream flow gauge. This gauge is located about 4 miles upstream of the Musgrave Diversion. The main channel was returned to its pre-flood location by local landowners and the contractor responsible for the construction of I-5.

The December 2005 flood, although not as large as the 1955 and 1964 floods, overtopped Harry Cash Road and scoured around the Musgrave Ditch culvert crossing at Harry Cash Road. Photograph 1 shows the culvert crossing as viewed from the south. Photograph 2 shows Harry Cash Road from a vantage point about 700 north of the bridge. Photograph 3 shows debris and sediment deposited along Harry Cash Road. This photograph was taken about 200 feet south of the bridge and was taken looking north. County Public Works Department provided these photographs for inclusion in this report.

The influence of high flow events is readily apparent in the terrain. Numerous scour holes and channels are visible near the diversions. Holes within these channels contain cobble. The invert elevations of some of these channels are often within 1 foot of the adjacent river bed. A prominent overflow channel exists about 200 feet north of Hart Diversion (see Figure 2). This channel flows from a gap in the berm along the right bank. The overflow channel has a top width of about 20 feet and depths of 2 to 3 feet.



Photograph 1. 2005 Post Flood Photograph Harry Cash Road (700 ft North of Bridge)





Photograph 2. 2005 Post Flood Harry Cash Road (700 ft North of Bridge)



Photograph 3. Post Flood 2005 Flood Harry Cash Road (200 feet south of the Bridge)

Photographs provided by Siskiyou County Public Works.



4.0 Hydraulic Analysis

NHC and Cascade conducted hydraulic analyses to assess potential impacts at the bridge. As discussed above, flood flows exceed the conveyance capacity of the primary channel and are conveyed across the floodplain as shallow overland flow. To simplify the analysis, we focused on comparing existing and project conditions at the bridge for a range of flows that are near the conveyance capacity of the bridge. This approach allowed us to address the issue with HEC-RAS, a one-dimensional hydraulic model.

Model geometry was developed for existing and project conditions. Existing conditions geometry is based on NHC and North State Land Surveys. Project conditions model geometry is based on the design surface created in Civil 3D and existing conditions survey data.

Manning's n values are estimated to be 0.05 for the channel and 0.065 in the floodplain.

Model runs were conducted using mixed flow, which allow for both subcritical and supercritical flow conditions. The starting water surface elevation were computed using normal depth with an energy slope of 0.005 ft/ft at the downstream end and 0.008 at the upstream end. These slopes were estimated from the longitudinal slope of the primary channel near the downstream and upstream ends.

Hydraulic characteristics were computed for steady state flows of 750, 1000, 1500, and 1700 cfs.

Workmaps for the existing and project conditions are provided in Appendix B.

Existing and project conditions model results are provided in Appendix B. Computed water surface profiles shown in Figure 1. Review of the profiles shows the project conditions channel about 35 feet shorter than the existing conditions. This reduction in channel length is due to the channel realignment. The model results show that there is no change in hydraulic conditions at the bridge. Flow conditions at the bridge are subcritical and are therefore controlled by downstream conditions. The model results show the bridge exerts a strong hydraulic control.

Deposition and scour near the bridge are not anticipated to change significantly due to the project because the project is of limited size, will be constructed to remain stable during extreme flows, and will not change sediment transport potential upstream or downstream of the project area. Sediment that reaches the project reach will be conveyed through the reach.



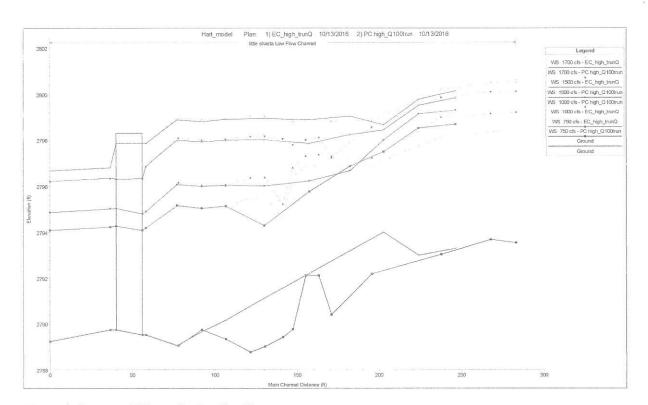


Figure 1. Computed Water Surface Profiles

Appendix A - Hydrology

3.2 Stream Gauge

The USGS operated a stream gauge on the Little Shasta River, Little Shasta River near Montague (No.11516900), from Water Year 1957 to 1978. Table 1 provides the information on the stream gauge.

Table 1. USGS gauge summary

Little Shasta River near Montague No.11516900
46 mi ²
3280 feet
October 1957 to September 1978
5910 cfs
12/22/1964

3.3 Flood Flow Estimate

NHC estimated flow at the project site to design stream stabilization features and intake facilities for fish passage. Flood flow estimates are computed for 100-year, 50-year, 10-year and 2-year events using flood flow frequency analysis. Flow frequency analysis conducted with USGS gauge data is transposed to the downstream project site by scaling the Bulletin 17B quantiles by the ratio of the project site and gauge drainage areas as shown in Equation 1. Table 2 shows the flow quantiles at the Little Shasta Gauge near Montague. Table 3 shows the transposed peak flow quantiles at the project site. Table 3 shows the flow frequency curves transposed to project site.

Equation 1.
$$Q_{site} = Q_{gauge} * (A_{site}/A_{gauge})^b$$

Where:

Q_{site} is the peak flow at the site,

Q_{gauge} is the peak flow calculated from the gauge record,

Agauge is the area tributary to the gauge,

Asite is the area tributary to the site,

b is the area exponent in the Northeast USGS regression equation for the return period of interest.



Table 2. Peak Flow Quantiles at Little Shasta River Stream Gauge near Montague

	Bulletin 17B Estimate
Return Period, yr	Flow (cfs)
100-year peak flow	4037
50-year peak flow	2656
25-year peak flow	1701
10-year peak flow	889
5-year peak flow	506
2-year peak flow	193

Table 3. Transposed Peak Flows at Project Site

	Northeast	Bulletin 17B Estimate
Return Period, yr	Area Exp	Flow (cfs)
100-year peak flow	0.59	5084
50-year peak flow	0.57	3319
25-year peak flow	0.54	2101
10-year peak flow	0.49	1077
5-year peak flow	0.45	603
2-year peak flow	0.4	226

NHC also estimated the peak flow at the project site with the Siskiyou County Drainage Manual (Siskiyou County 1974). The Siskiyou County Drainage Manual uses precipitation and ratio of peak flow to annual mean flow to estimate peak flows. These relationships were developed specifically for the region to estimate peak flows. The County also used this method to estimate flows at this location. NHC's estimates, as well as the County's estimates of peak flow are listed in Table 4. The small disparity between estimates is likely due to interpretational differences of the graphs listed in the County Hydrology Manual.

The USGS developed regional regression equations to estimate peak flows throughout California (USGS 1977). In this area, the USGS regional regression equations were developed for basins with drainage areas less than 25 square miles and are therefore not likely to produce reliable estimates for basins significantly larger. For comparison purposes, NHC estimated flows using the USGS regional regression equations. These estimates are listed in Table 4.



Table 4. Comparison of Flood Flow Estimation Results

	Regional	Siskiyou	Transposed	Values provided
	Regression	Drainage	Bulletin 17B	by Siskiyou
	Equation	Manual		County
Return Period, yr	Flow (cfs)	Flow (cfs)	Estimate Flow (cfs)	Estimate Flow (cfs)
100-year peak flow	1507	4900	5084	5400
50-year peak flow	1141	3500	3319	3950
25-year peak flow	820	2600	2101	3000
10-year peak flow	482	1500	1077	1800
5-year peak flow	307	900	603	
2-year peak flow	119		226	

The Siskiyou Drainage Manual and transposed flow frequency estimates produced similar values for the less frequent flows. Discrepancies between the two estimates increased as the return period decreased. NHC recommends using the higher peak flows estimated by the County for use as design flows.

It is interesting to note that the 100-year peak flow estimate of 5400 cfs was exceeded on December 22, 1964. The peak flow measured at the gauge on this day was 5910 cfs. Figure 5 plots the annual peak flows measured by the USGS at the Little Shasta stream gauge near Montague. It is also interesting to note that the anecdotal record suggests that significant peak flows occur more frequently than the gauge records indicate. Since 1950, significant floods occurred each decade with the exception of 1970. The USGS stream gauge on the Little Shasta River was installed after the 1955 flood and decommissioned prior to the 1981 flood. However, it did record the 1964 flood.



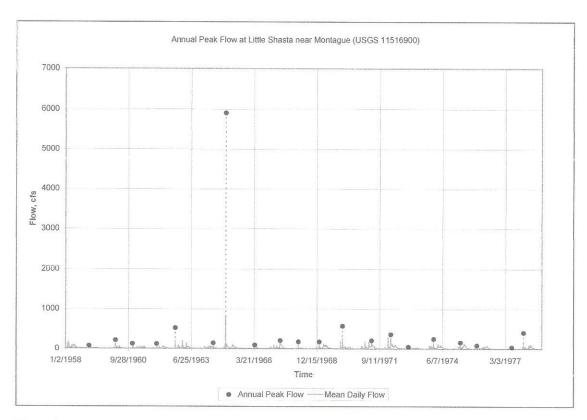


Figure 2. Little Shasta near Montague Gauge Annual Peak Flow



Appendix B – Hydraulic Analysis



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Reach River Sta Profile	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl	Shear Chan
the second of the second contract of the second of the sec				(cfs)	(#)	(H)	(#)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(¥)		(lb/sq ft)
Low Flow Channel	334.74	750 cfs	EC_high_trunQ	750.00	2793.54	2798.41	2797.00	2798.84	0.005569	6,19	165.65	47.80	0.50	1.62
Low Flow Channel	334.74	1000 cfs	EC_high_trunQ	1000,00	2793.54	2799.21	2797.54	2799.70	0.005403	6.75	205.16	51.57	0.50	1.83
Low Flow Channel	334.74	1500 cfs	EC_high_trunQ	1500.00	2793.54	2800.14	2798.41	2800.88	0.006836	8.42	256.86	56.57	0.58	2.71
low Flow Channel	319.58	750 cfe	EC high fruin	750 00	2703 GR	2708 43		27 8070	777777	2008	167 56	n n	C	7 57
Low Flow Channel	319,58	1000 cfs	EC high trung	1000.00	2793.68	2799.14		2799.61	0.005275	6 44	215.54	60.03	0.30	170
Low Flow Channel	319.58	1500 cfs	EC_high_trunQ	1500.00	2793.68	2800.11		2800.75	0.005942	7.65	273.89	60.03	0.54	2.26
Low Flow Channel	299	750 cfs	PC high_Q100trun	750,00	2793.30	2798.67	2796.99	2798.86	0.002561	4.03	243.15	74.67	0.33	0.70
Low Flow Channel	299	1000 cfs	PC high_Q100trun	1000,00	2793.30	2799.31	2797.37	2799.55	0.002664	4.49	291.65	76.13	0.35	0.83
Low Flow Channel	299	1500 cfs	PC high_Q100trun	1500.00	2793.30	2799.84	2797,98	2800.23	0.004022	5.89	344.94	86.97	0.43	1.39
Low Flow Channel	289.55	750 cfs	EC high trunQ	750,00	2793.03	2798.13	2796.85	2798,58	0.005229	6.02	167.53	55.25	0.49	1.53
Low Flow Channel	289.55	1000 cfs	EC_high_trunQ	1000,00	2793.03	2798.98	2797.39	2799.46	0.004688	6.36	214.31	55.25	0,47	1.62
Low Flow Channel	289.55	1500 cfs	EC_high_trunQ	1500,00	2793.03	2799,86	2798.35	2800.57	0.005839	7.83	263.17	55.25	0.54	2.33
Low Flow Channel	27R	750 cfs	P.C. bigh O100ferin	750.00	2793.00	C2 RD7C	07 8070	97 8070	0.003330	A EG	244 22	72.00	0000	C
Low Flow Channel	276	1000 cfs	PC high Q100trun	1000,00	2793.00	2799.15	2797.35	2799.47	0.003448	5.06	256.71	72.08	0.30	0.90
Low Flow Channel	276	1500 cfs	PC high Q100trun	1500,00	2793.00	2799.52	2798.23	2800.10	0.005845	0.90	283.44	72.08	0.52	0 0 0
Low Flow Channel	255	750 cfs	PC high_Q100trun	750.00	2794.00	2797.49	2797.49	2798.56	0.019975	8.60	99.85	48.85	0.88	3.65
Low Flow Channel	255	1000 cfs	PC high_Q100trun	1000,00	2794.00	2797.98	2797.98	2799.23	0.019471	9.41	124.11	48.86	0.89	4.15
Low Flow Channel	255	1500 cfs	PC high_Q100frun	1500.00	2794.00	2798.43	2798.43	2799.81	0.020951	10.58	192.81	77.48	0,94	5.04
Low Flow Channel	247.39	750 cfs	EC_high_trunQ	750,00	2792.18	2796.91	2796.91	2798.16	0.015097	77.6	102.51	43.17	0.82	4.12
Low Flow Channel	247.39	1000 cfs	EC_high_trunQ	1000.00	2792.18	2797.21	2797.21	2798.99	0.020057	11.77	116.10	45.69	96.0	5.86
Low Flow Channel	247.39	1500 cfs	EC_high_trunQ	1500.00	2792.18	2798.55	2798.55	2800.14	0.014480	11.81	188.02	56.59	0,85	5.43
Low Flow Channel	234	750 cfs	PC high_Q100trun	750.00	2793.19	2796,87	2796.87	2797.73	0.017419	8.07	120.10	68.82	0.82	3,21
Low Flow Channel	234	1000 cfs	PC high_Q100trun	1000.00	2793.19	2796.67	2797.26	2798.62	0.041891	11.95	106.43	68.24	1.25	7.20
Low Flow Channel	234	1500 cfs	PC high_Q100trun	1500.00	2793.19	2798.24	2797.93	2799.08	0.012166	8.64	251.14	100.36	0.73	3.25
Low Flow Channel	222.85	750 cfs	EC_high_trunQ	750,00	2790.40	2796.85	2795.78	2797.65	0.011768	7.30	117.39	59,57	0.63	2.50
Low Flow Channel	222.85	1000 cfs	EC_high_trunQ	1000.00	2790.40	2797.23	2796.93	2798.30	0.014552	8,59	140.13	59.57	0.71	3.37
Low Flow Channel	222.85	1500 cfs	EC_high_trunQ	1500,00	2790.40	2797,29	2797.86	2799.60	0.031104	12.67	143.45	59.57	1.03	7.30
Low Flow Channel	214.96	750 cfs	EC_high_frunQ	750,00	2792.11	2796.89		2797,51	0.009275	6.62	140.15	62.42	0.58	2.04
Low Flow Channel	214.96	1000 cfs	EC_high_trunQ	1000.00	2792.11	2797.34		2798.11	0.010508	7.56	167.97	62.42	0.63	2.56
Low Flow Channel	214.96	1500 cfs	EC_high_trunQ	1500,00	2792.11	2798.12	2797.60	2799.16	0.011925	8.97	216,95	62.42	69.0	3,42
Low Flow Channel	209	750 cfs	PC high_Q100trun	750.00	2792.22	2795.76	2796.12	2797.16	0.027624	10.02	94.11	96.09	1.02	4.98
Low Flow Channel	209	1000 cfs	PC high_Q100trun	1000.00	2792.22	2796.22	2796.55	2797.71	0.025729	10,65	122.66	62.15	1.01	5.36
Low Flow Channel	209	1500 cfs	PC high_Q100trun	1500.00	2792.22	2797.86	2797.26	2798.79	0.010766	8.93	230.36	73.74	0.70	3.31
Low Flow Channel	207.15	750 cfs	EC_high_trunQ	750,00	2792.11	2796.86		2797.43	0.007182	6.65	150.29	57.85	0.56	1.92
Low Flow Channel	207.15	1000 cfs	EC_high_trunQ	1000,00	2792.11	2797.29		2798.03	0.008496	7.69	174.99	57.85	0.62	2.50

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207.15 1500 cfs 199.13 750 cfs 199.13 1000 cfs 199.14 750 cfs 193.14 750 cfs 193.14 1000 cfs 193.14 1000 cfs 193.14 1500 cfs 182.23 750 cfs 182.23 1500 cfs 182.2 1500 cfs 173.43 750 cfs 173.43 750 cfs 173.43 1500 cfs 178.55 1000 cfs 178.55 1000 cfs 158.55 1500 cfs 158.56 1500 cfs	750.00 1000.00 1500.00 1500.00 1500.00 750.00 1600.00 1500.00 1500.00 1500.00 1500.00 1500.00	2789.75 2789.75 2789.75 2789.41 2789.41 2789.41 2789.41	2798.02 2796.40 2796.79 2797.78	2796 AN	2799.07	0.010507	9.40	216.86		0.71	3.56
198,13 750 cfs 198,13 1000 cfs 198,13 1000 cfs 198,13 1500 cfs 193,14 750 cfs 193,14 1000 cfs 193,14 1500 cfs 182,23 1000 cfs 182 750 cfs 182 750 cfs 173,43 750 cfs 173,43 1000 cfs 173,43 1000 cfs 158,55 750 cfs 158,55 1500 cfs 158,55 1500 cfs 158 1500 cfs 158 1500 cfs 158 1500 cfs 144,03 750 cfs 144,03 750 cfs 144,03 750 cfs	750.00 1000.00 1500.00 1500.00 1500.00 1500.00 1500.00 1500.00 1500.00 1500.00 1500.00	2789.75 2789.75 2789.75 2789.41 2789.41 2789.41	2796.40 2796.79 2797.78	2796 AN						Angelogical facilities of physics and representation of the second	
199,13 1000 cfs 199,13 1500 cfs 193,14 750 cfs 193,14 1000 cfs 193,14 1000 cfs 193,14 1500 cfs 182,23 750 cfs 182,23 1500 cfs 182,23 1500 cfs 182,23 1500 cfs 182,23 1500 cfs 173,43 750 cfs 173,43 1500 cfs 173,43 1500 cfs 178,55 750 cfs 158,55 1500 cfs	750.00 1500.00 1000.00 1500.00 1500.00 1500.00 1500.00 1500.00 1500.00	2789.75 2789.41 2789.41 2789.41 2789.41	2796,79	2001	2797.31	0.017096	10.03	126.22	55.25	0.76	4,42
199.13 1500 cfs 193.14 750 cfs 193.14 1000 cfs 193.14 1500 cfs 193.23 750 cfs 182.23 1500 cfs 173.43 750 cfs 173.43 1500 cfs 173.43 1500 cfs 173.43 1500 cfs 158.55 1500 cfs 158.55 1500 cfs 158.55 1500 cfs 158.55 1500 cfs 158.55 1500 cfs 158.55 1500 cfs	750.00 1000.00 1500.00 1500.00 1600.00 1500.00 1500.00 1500.00	2789.75 2789.41 2789.41 2789.41	2797.78	2796.79	2797.89	0.019543	11.24	148,01	55.25	0.82	5.43
193.14 750 cfs 193.14 1000 cfs 193.14 1000 cfs 182.23 750 cfs 182.23 1000 cfs 182.23 1500 cfs 182.23 1500 cfs 182 750 cfs 182 750 cfs 173.43 750 cfs 173.43 750 cfs 173.43 1000 cfs 158.55 1000 cfs 158.55 1000 cfs 158.56 1000 cfs 158 750 cfs 158 1500 cfs 158 1000 cfs 144.03 750 cfs 144.03 750 cfs	750.00 1000.00 1500.00 1000.00 1500.00 1500.00 1500.00 1500.00	2789.41 2789.41 2789.41			2798.95	0.017717	11.89	202.69	55.25	0.81	5.76
182,14 1000 cfs 193,14 1500 cfs 182,23 750 cfs 182,23 1000 cfs 182, 750 cfs 182 750 cfs 182 1000 cfs 173,43 750 cfs 173,43 1000 cfs 173,43 1500 cfs 178,55 750 cfs 158,55 1500 cfs 144,03 750 cfs	1500,00 1500,00 750,00 1000,00 1500,00 1500,00 1500,00 750,00	2789.41	2794.56	2795.31	2797.01	0.040362	17.54	82.99	38.82	1.37	12.69
193.14 1500 cfs 182.23 750 cfs 182.23 1000 cfs 182.2 750 cfs 182. 1000 cfs 182. 1000 cfs 173.43 750 cfs 173.43 1000 cfs 173.43 1500 cfs 173.43 1500 cfs 178.55 1500 cfs 158.55 1500 cfs 144.03 750 cfs	750,00 1000,00 1500,00 1500,00 1500,00 1500,00 750,00	2789.41	2795.20	2796.15	2797.60	0.036858	18.14	109.23	44.71	1.34	13.05
182,23 750 cfs 182,23 1000 cfs 182,23 1500 cfs 182,23 1500 cfs 182 750 cfs 182 1000 cfs 173,43 750 cfs 173,43 1500 cfs 173,43 1500 cfs 158,55 1000 cfs 158,55 1500 cfs 158,55 1500 cfs 158 1500 cfs 158 1500 cfs 144,03 750 cfs 144,03 750 cfs 144,03 750 cfs	750,00 1000,00 1500,00 750,00 1000,00 750,00	2789.01	2798.05		2798.74	0.007575	10.78	267.29	56.72	0.65	4.02
182.23 1000 cfs 182.23 1500 cfs 182 750 cfs 182 1000 cfs 173.43 750 cfs 173.43 1000 cfs 173.43 150 cfs 173.43 1500 cfs 158.55 750 cfs 158.55 1000 cfs 158.55 1500 cfs 158 750 cfs 158 1500 cfs 158 1000 cfs 144.03 750 cfs 144.03 750 cfs 144.03 750 cfs	1500.00 1500.00 750.00 1000.00 750.00		2795,47	2794.30	2795.97	0.006549	7.02	165.20	62.00	0.52	2.04
182,23 1500 cfs 182 750 cfs 182 1000 cfs 182 1000 cfs 173,43 750 cfs 173,43 1600 cfs 173,43 1500 cfs 178,55 1600 cfs 158,55 1600 cfs 158,55 1500 cfs 158 750 cfs 158 1500 cfs 158 1000 cfs 144,03 750 cfs 144,03 760 cfs	750.00 1000.00 1500.00 750.00	2789.01	2796.36	2794.81	2796.86	0.005682	7.22	221.39	63.00	0.50	2.05
182 750 cfs 182 1000 cfs 182 1000 cfs 173.43 750 cfs 173.43 1000 cfs 173.43 150 cfs 173.43 1500 cfs 158.55 750 cfs 158.55 1500 cfs 158.55 1500 cfs 158 750 cfs 158 750 cfs 158 1000 cfs 144.03 750 cfs 144.03 750 cfs	750.00 1000.00 1500.00 750.00	2789.01	2798.17	2795.92	2798.61	0.003857	7.01	335.01	63,00	0.43	1.78
182 1000 cfs 182 1500 cfs 173.43 750 cfs 173.43 1000 cfs 173.43 1500 cfs 158.55 750 cfs 158.55 1500 cfs 158.55 1500 cfs 158.55 1500 cfs 158 1500 cfs 158 1500 cfs 158 1500 cfs 144.03 750 cfs 144.03 750 cfs 144.03 750 cfs	1500,00	2791.12	2794.29	2794.29	2796.50	0.050784	12.19	92.29	33.06	1.35	7.79
182 1500 cfs 173.43 750 cfs 173.43 1000 cfs 173.43 1500 cfs 158.55 750 cfs 158.55 1000 cfs 158.55 1500 cfs 158.55 1500 cfs 158 750 cfs 158 750 cfs 158 1000 cfs 144.03 750 cfs 144.03 760 cfs 144.03 760 cfs	1500.00	2791.12	2795.99	2795.63	2796.79	0.010892	7.95	166.36	64.39	0.68	2.79
173.43 750 cfs 173.43 1000 cfs 173.43 1500 cfs 158.55 750 cfs 158.55 1000 cfs 158.55 1500 cfs 158. 750 cfs 158 750 cfs 158 750 cfs 158 1000 cfs 144.03 750 cfs 144.03 760 cfs 144.03 760 cfs	750.00	2791.12	2798.01	2796.34	2798.49	0.004387	6.54	329,36	90.62	0.46	1.66
173.43 750 cfs 173.43 1000 cfs 173.43 1500 cfs 158.55 750 cfs 158.55 1500 cfs 158.55 1500 cfs 158.55 1500 cfs 158.55 1500 cfs 158.750 cfs 144.03 750 cfs	00'06/	1	1.00		0 0000	6		4 - 1 - 1		4	
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173.43 1900 cfs 158.55 750 cfs 158.55 1000 cfs 158.55 1500 cfs 158 750 cfs 158 1000 cfs 144.03 750 cfs	00,0001	11.00.12	21.00.04		27.90.02	0.00000	40.00	220.23	70.10	0.43	1.33
158.55 750 cfs 158.55 1000 cfs 158.55 1500 cfs 158 750 cfs 158 1500 cfs 158 1500 cfs 144.03 750 cfs	1500.00	7/88.77	27.88.10		2788.57	0.002733	0.28	363.47	70.16	0.38	1,39
158.55 1000 cfs 158.55 1500 cfs 158 750 cfs 158 1000 cfs 158 1500 cfs 144.03 750 cfs	750.00	2789.33	2795.16		2795.81	0.007324	7.69	145.17	51.37	0.59	2.40
158.55 1500 cfs 158 750 cfs 158 1000 cfs 158 1500 cfs 144.03 750 cfs	1000.00	2789.33	2796.01		2796.71	0.007052	8.32	197.85	66.10	0.59	2.68
158 750 cfs 158 1000 cfs 158 1500 cfs 144.03 750 cfs	1500.00	2789.33	2798.03		2798.52	0.003764	7.34	331,47	66.10	0.45	1.90
158 1000 cfs 158 1500 cfs 144.03 750 cfs 144.03 1000 cfs	750.00	2790.16	2795.12	2794.20	2795.66	0.006887	6.51	154.59	60.73	0.55	1,85
158 1500 cfs 144.03 750 cfs 144.03 1000 cfs		2790.16	2796.03	2794.89	2796.53	0.005324	6.49	211.27	63.41	0.49	1.72
144.03 750 cfs 144.03 1000 cfs	1500.00	2790.16	2797.99	2795.67	2798.39	0.003097	60.9	354.70	76.89	0.40	1.37
144.03 1000 cfs	750,00	2789.74	2794.98		2795.69	0.009003	8,31	147.82	59.89	0.65	2.84
	1000.00	2789.74	2796.02		2796.57	760900.0	7.74	209.67	59.89	0.55	2.32
Low Flow Channel 144.03 1500 cfs EC_high_trunQ	1500.00	2789.74	2797.99		2798,45	0,003723	7.29	327.93	59.83	0,45	1.87
Low Flow Channel 143 750 cfs PC high_Q100trun	750,00	2789.65	2795.04		2795,56	0.006315	6.20	154.13	62.68	0.52	1.68
Low Flow Channel 143 1000 cfs PC high_Q100trun	1000.00	2789.65	2795.97		2796.45	0.004881	6.19	212.62	62.68	0.47	1.57
Low Flow Channel 143 1500 cfs PC high_Q100trun	1500.00	2789.65	2797.91		2798.34	0.003047	6.01	334,43	62.68	66.0	1.33
Low Flow Channel 129,66 750 cfs EC_high_trunQ	750.00	2789.04	2795.17		2795.48	0.003903	6.02	215.20	71.64	0.44	1.42
129.66 1000 cfs	1000,00	2789.04	2796.14		2796.43	0.003076	5.92	284.83	71.64	0.40	1.31
Low Flow Channel 129,66 1500 cfs EC_high_trunQ	1500,00	2789.04	2798.09	- specific and specific specific	2798.35	0.002106	5.78	424.15	71.64	0.34	1.15
	750,00	2789.04	2795.14		2795.41	0.003582	4.64	208.76	67.97	0.39	0.94
129 1000 cfs	1000,00	2789.04	2796.06		2796.33	0.002940	4.76	271.87	69,24	0.36	0.93
Low Flow Channel 129 1500 cfs PC high_Q100trun	1500.00	2789.04	2797.99		2798.25	0.001986	4.79	405.14	69.24	0.31	0.85

E.G. Slope Vel Chnl Flow Area Top Width Froude # Chl Shear Chan 3.80 4.11 1.56 1.80 1.27 1.51 1.51 1.92 1.92 (lb/sq ft) 0.79 0.81 0.81 0.70 0.70 0.53 0.53 0.53 0.54 0.54 0.46 0.48 0.50 0.50 31.95 32.97 35.89 36.33 36.33 38.28 38.27 35.93 31,95 35.61 36.65 36.65 46.64 35.93 35.61 (ft) 106.34 106.34 129.52 129.53 197.10 130.47 158.24 207.50 142.84 171.13 130.47 158.23 142.84 171.13 222.21 (sd ft) 9.39 10.39 10.57 10.57 6.48 6.48 7.50 7.50 5.36 6.01 9.39 5.85 6.01 (ft/s) 0.006123 0.013769 0.013769 0.013828 0.006682 0.006412 0.013823 0.009293 0,009295 0,006682 0.006411 0.00500.0 0.005000 0.00500.0 0.00500.0 0.005008 Q Total Min Ch El W.S. Elev Crit W.S. E.G. Elev 2795.20 2795.20 2796.12 2796.12 2798.08 2798.08 2794.76 2795.65 2795.65 2797.20 2794.52 2794.52 2795.41 2796.96 2796.96 2795.41 (H) (ft) 2793.65 2793.65 2794.29 2794.29 2795.35 2792.94 2795.35 2792.41 2792.94 2793.87 2793.87 2792.41 2794.18 2794.89 2796.86 2794.23 2796.34 2796.34 2794.07 2794,85 2794.23 2795.01 2794.07 2794.85 2796.20 2796.20 2794.89 2795.01 (H) 2789.51 2789.51 2789.73 2789.73 2789.22 2789.22 2789.51 2789.51 2789.73 2789.73 2789.73 2789.22 2789.22 2789.51 2789.22 2789.22 (ft) 750.00 750.00 1000.00 1500.00 Bridge 750,00 750,00 750,00 1000,00 750,00 1000.00 1500,00 1500,00 1000,00 1500.00 1500.00 1500.00 (cfs) PC high_Q100trun EC_high_trunQ PC high_Q100trun PC high_Q100trun EC_high_trunQ PC high_Q100trun PC high_Q100trun PC high_Q100trun PC high_Q100trun PC high_Q100trun PC high_Q100trun HEC-RAS River: little shasta Reach: Low Flow Channel (Continued) EC_high_trunQ EC_high_frunQ EC_high_trunQ EC_high_trunQ EC_high_trunQ EC_high_trunQ EC_high_trunQ Plan Profile 1000 cfs 1000 cfs 1500 cfs 1000 cfs 1500 cfs 1500 cfs 750 cfs 750 cfs 1000 cfs 1500 cfs 1000 cfs 1000 cfs 1500 cfs 1500 cfs 750 cfs 750 cfs 750 cfs 750 cfs River Sta 110.06 110.06 110.06 110.06 110.06 88.47 88.47 88.47 88.47 51.82 51.82 88.47 51.82 51.82 51.82 108 Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Low Flow Channel Reach