BIOLOGICAL RESOURCES ASSESSMENT VARTNAW LANDING 5300 REDWOOD HIGHWAY 149 MCNEAR AVE PETALUMA, SONOMA COUNTY, CALIFORNIA APN 019-300-019



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This assessment is based on information available at the time of the study and on-site conditions that were observed on the date of the site visits referenced in the report. In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of the biologist with experience working with the species and habitats. For some threatened and endangered species, a site survey at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies.

EXECUTIVE SUMMARY

This report presents the results of a biological resources assessment conducted for approximately 4 acres located at 149 McNear Avenue in Petaluma, Sonoma County, California. The project site is south of Petaluma Hill Boulevard South, east of McNear Avenue, and north of Nadine Lane approximately 1 mile southeast of downtown Petaluma. A single-family residence is located at 55 McNear Avenue and a second residence is located just south of 1400 Petaluma Boulevard South. There is also an abandoned farmhouse south of the single-family residence at 55 McNear Ave and a dilapidated barn located in the south-central interior of the property. A dirt road, no longer actively used, provides access to the site from the southwest corner of the property off of McNear Avenue. Surrounding land uses are single-family residences to the north, east and south and the Petaluma Veterans Building to the west.

The purpose of the biological resource assessment is to identify special-status plant and wildlife species and sensitive habitats (including wetlands and creeks) that have the potential to occur on or in the vicinity of the study area and to determine if the proposed vineyard development would affect these resources. Recommendations are provided to minimize or avoid impacts to biological resources.

Based on background data collected and site visits conducted in June 2019 and on February 4, 2021, it was determined that the project site provides potential habitat for nesting birds and special-status bats. No potential wetlands were identified on the site. The site provides marginal habitat for special-status plants associated with disturbed grassland habitats.

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1.0 INTRODUCTION

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Based on background data collected and site visits conducted in June 2019 and on February 4, 2021, it was determined that the project site provides potential habitat for nesting birds and special-status bats. No potential wetlands were identified on the site. The site provides marginal habitat for special-status plants associated with grassland habitats.

Site Description

Habitat on the site consists of developed (the houses and barn), ruderal (disturbed areas associated with the structures), and mostly non-native grassland. There are several mature trees throughout the project site including but not limited to valley oak (Quercus lobata), coast live oak (Quercus agrifolia), cottonwood (Populus sp.), California bay (Umbellularia californica), walnut (Juglans sp.), and plum (Prunus sp.). There are large patches of non-native blackberry (Rubus armeniacus) and native coyote bush (Baccharis pilularis) intermixed with ornamentals and a variety of non-native herbs and grasses.

In the interior portions of the property there are several piles of fill that have been overgrown with non-natives and ornamentals.

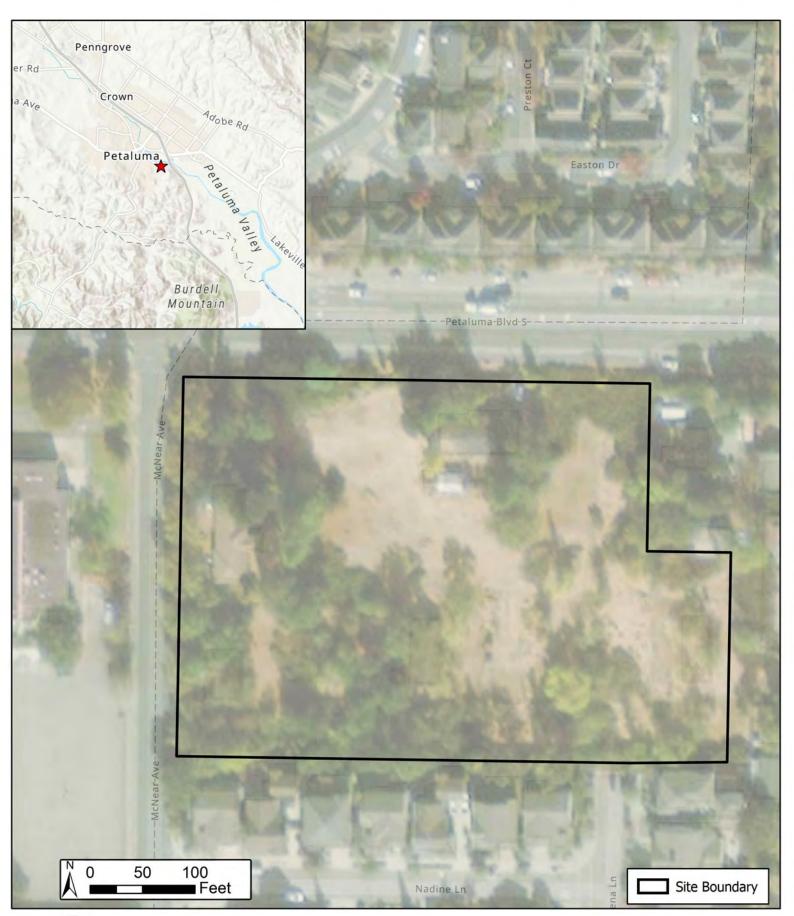




Figure 1: Site Map Vartnaw Landing Petaluma, California A summary of the method and results of our wetland and biological resource assessments follows.

2.0 WETLANDS ASSESSMENT

2.1 Corps of Engineers Jurisdictional Criteria Review

Unless exempt from regulation, all proposed discharges of dredged or fill material into waters of the United States require U.S. Army Corps of Engineers (Corps) authorization under Section 404 of the Clean Water Act (33 U.S.C. 1344) and Clean Water Act Section 401 authorization from the Regional Water Quality Control Board (RWQCB). Waters of the United States generally include tidal waters, lakes, ponds, rivers, streams (including ephemeral and intermittent streams), and farmed wetlands.

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The Corps identifies wetlands using a "multi-parameter approach" which requires positive wetland indicators in three distinct environmental categories: hydrology, soils, and vegetation. The *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West*, which was released in early 2007 and revised in 2008 (version 2.0), is utilized when conducting jurisdictional wetland determinations in areas identified within the boundaries of the Arid West (U.S. Army Corps of Engineers, 2008). The project site falls within the Arid West region and so wetlands identified on the site were delineated using that guidance.

On June 22, 2020, the Environmental Protection Agency (EPA) and the Department of the Army's Navigable Waters Protection Rule: Definition of "Waters of the United States" (NWPR) became effective in 49 states and in all US territories. "Waters of the U.S." (WOTUS) are waters such as oceans, rivers, streams, lakes, ponds, and wetlands subject to Corps Regulatory Program jurisdiction under Section 404 of the Clean Water Act (CWA). The San Francisco District will use the NWPR definitions of WOTUS when making permit decisions and providing landowners written determinations of the limits of federal jurisdiction on their property (SPNUSACE, 2020). Under this new rule, jurisdictional features must have a direct surface connection to a navigable water. Certain features previously subject to potential regulation such as farm or roads side ditches, ephemeral streams, and isolated wetlands are excluded under the new rule. It should be noted, the State Water Resources Board in anticipation of this rule has developed its own wetland definition in efforts to maintain jurisdiction over certain wetland features including ephemeral drainages and isolated wetlands.

2.1.1 Potential Wetlands

Section 328.3 of the Federal Code of Regulations defines wetlands as:

"Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

EPA, 40 CFR 230.3 and CE, 33 CFR 328.3 (b)

intermittent streams), wetlands (excluding isolated wetlands for the Corps), and farmed wetlands.

The three parameters used to delineate wetlands are the presence of hydrophytic vegetation, wetland hydrology, and hydric soils. According to the Corps Manual, for areas not considered "problem areas" or "atypical situations":

"....[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation."

Vegetation

Plant species identified are assigned a wetland status according to the U.S. Fish and Wildlife Service list of plant species that occur in wetlands (Reed 1988). This wetland classification system is based on the expected frequency of occurrence in wetlands as follows:

OBL	Always found in wetlands		>99% frequency
FACW	Usually found in wetlands	67-99%	
FAC	Equal in wetland or non-wetl	ands	34-66%
FACU	Usually found in non-wetland	ds	1-33%
UPL/NLUpland	d/Not listed (upland)	<1%	

The Corps Manual and Supplements require that a three-step process be conducted to determine if hydrophytic vegetation is present. The first step is the Dominance Test (Indicator 1); the second is the Prevalence Index (Indicator 2); the third is Morphological Adaptations (Indicator 3). The Dominance Test requires the delineator to apply the "50/20 rule". The dominant species are chosen independently from each stratum of the community. In general, dominant species are determined for each vegetation stratum from a sampling plot of an appropriate size surrounding the sample point. Dominants are defined as the most abundant species that individually or collectively account for more than 50 percent of the total vegetative cover in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total cover. If greater than 50 percent of

the dominant species has an OBL, FACW, or FAC status, the sample point meets the hydrophytic vegetation criterion.

If the sample point fails the 50/20 rule and both hydric soils and wetland hydrology are not present, then the sample point does not meet the hydrophytic vegetation criterion, unless the site is a problematic wetland situation. However, if the sample point fails Indicator 1, but hydric soils and wetland hydrology are both present, the delineator must apply the Indicator 2, Prevalence Index. The Indicator 3, Morphological Adaptations, is rarely used in this region.

<u>Hydrology</u>

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (a minimum of 14 consecutive days). Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation or oxidized root channels, or secondary indicators such as the FAC-neutral test or the presence of a shallow aquitard. Only one primary indicator is required to meet the wetland hydrology criterion; however, if secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology.

Soils

The Natural Resource Conservation Service (NRCS) defines a hydric soil as follows:

"A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part." Federal Register July 13, 1994, U.S. Department of Agriculture, NRCS

Soils formed over long periods under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. The supplement provides a list of the hydric soil indicators that are known to occur in region. Soil samples were collected and described according to the methods provided in the supplements. Soil chroma and values were determined using a Munsell soil color chart (Kollmorgen 1975). If any of the soil samples met one or more of the hydric soil indicators described in the supplement hydric soils were determined to be present.

2.1.2 Waters of the U.S. (Other Waters)

"Other waters" or "Waters of the United States" (WUS) other than wetlands are also potentially subject to Corps jurisdiction. WUS subject to Corps jurisdiction include ponds, lakes, rivers, streams (including ephemeral and intermittent streams), and all areas below the High Tide Line (HTL) subject to tidal influence. Jurisdiction in non-tidal areas extends to the ordinary high-water mark (OHW) defined as:

"...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

Federal Register Vol. 51, No. 219, Part 328.3 (e). November 13, 1986

2.2 San Francisco Regional Water Quality Control Board

The Regional Water Quality Control Board regulates waters of the State pursuant to Sections 13260(a)(1) and 13050(e) of the State Water Code, and the Porter Cologne Act. In addition, anyone proposing to conduct a project that requires a federal permit or involves dredge or fill activities that may result in a discharge to U.S. surface waters and/or "Waters of the State" are required to obtain a Clean Water Act (CWA) Section 401 Water Quality Certification and/or Waste Discharge Requirements (Dredge/Fill Projects) from the Regional Water Quality Control Board, verifying that the project activities will comply with state water quality standards. The most common federal permit for dredge and fill activities is a CWA Section 404 permit issued by the Corps of Engineers (North Coast Regional Water Quality Control Board, 2007). In general, the RWQCB employs similar wetland delineation techniques for identifying wetland areas potentially subject to its regulation.

Section 401 of the CWA grants each state the right to ensure that the State's interests are protected on any federally permitted activity occurring in or adjacent to Waters of the State. In California, the Regional Water Quality Control Boards (Regional Board) are the agency mandated to ensure protection of the State's waters. So if a proposed project requires a U.S. Army Corps of Engineers CWA Section 404 permit, falls under other federal jurisdiction, and has the potential to impact Waters of the State, the Regional Water Quality Control Board will regulate the project and associated activities through a Water Quality Certification determination (Section 401) (North Coast Regional Water Quality Control Board, 2007).

However, if a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a fill discharge to "Waters of the State", the Regional Board has the option to regulate the project under its state authority (Porter-Cologne) in the form of Waste Discharge Requirements or Waiver of Waste Discharge Requirements (North Coast Regional Water Quality Control Board, 2007). Waters of the State include isolated wetlands, which are not regulated by the Corps.

In June 2020, the State of California developed its definition of a wetland to address arid conditions in the west. The definition differs from the federal definition in that a wetland can include only wetlands soil and hydrology and not hydrophytic wetland vegetation.

However, if the area does have vegetation, it must include wetland vegetation in order to be classified a wetland.

2.3 California Department of Fish and Wildlife

Activities that result in the substantial modification of the bed, bank or channel of a stream or lake may require a Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) pursuant to Sections 1600-1607 of the California Fish and Game Code. On streams, creeks and rivers, the extent of CDFW jurisdiction extends from the top of bank to top of bank or the outer limits of the riparian canopy, whichever is wider.

2.4 Background review

Prior to conducting the on-site wetlands assessment within the study area, various background materials relating to the site were reviewed. These include aerials from Google earth and the Petaluma River U.S.G.S. 7.5-minute quadrangle. No potential wetlands were identified in the background review. In addition, historic aerials of the property were reviewed on historicaerials.com dating back to 1952. Those aerials showed that much of the property was a farm (likely a chicken farm) and no potential wetlands were observed on the historic aerials either

Additionally, the Soil Survey of Sonoma County (web Soil Survey) was reviewed to determine if any of the soils on the project site are mapped as hydric soils. The presence of a hydric soil-mapping unit on a project site suggests the presence of potential wetland habitats and therefore is another tool used in potential wetland identification.

Soil within the Study Area is mapped as Yolo clay loam 0 to 5 percent slopes. This soil is not listed as hydric on the County or National list.

2.5 Wetland Assessment and Results

On February 4, 2021 I conducted a wetland delineation within the Study Area. The entire project site was walked to identify potential wetlands based on visual observation. Several large patches of Himalayan blackberry (*Rubus armeniacus*) were observed. Because Himalayan blackberry is listed as a facultative species (meaning it is found 50 percent of the time in wetlands and 50 percent of the time in uplands), sample points were taken at these locations. A total of 9 soil sample points were dug to a depth of 16 inches. None of the soil pits showed evidence of hydric soils therefore these areas were determined not to be wetlands. Please refer to Appendix B for copies of the data sheets and Plate 1 for a map illustrating the sample point locations. No potential wetlands were identified on the site.





Plate 1: Soil Sampling Data Points Vartnaw Landing Petaluma, California



Blackberry patch north of the existing barn



Site looking southeast



Middle of site looking southwest. Note fill piles.

3.0 REGULATORY FRAMEWORK

Special-status plants and animals are legally protected under the State and Federal Endangered Species Acts or other regulations, and species that are considered rare by the scientific community. Special status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and CDFW special status invertebrates are all considered special status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal.

Sources consulted for up-to-date information on conservation status included the U.S. Fish and Wildlife Service (USFWS) (2021) for federally listed species (including Proposed and Candidate species) and California Department of Fish and Wildlife (CDFW) (2021) for State of California listed species. Special-status species also include species with California Rare Plant Rank (CRPR) 1A (Plants Presumed Extinct in California), CRPR 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere), or CRPR 2 (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere), as indicated by the CNPS *Inventory* (CNPS 2021). Impacts to these species must be reviewed under the provisions of the California Environmental Quality Act (CEQA) Guidelines.

Also considered special-status are those species with CRPR 3 (Plants About Which We Need More Information—A Review List) and CRPR 4 (Plants of Limited Distribution—A Watch List) of the CNPS Inventory. CRPR4 are considered to be of lower sensitivity, and generally do not fall under specific state or federal regulatory authority.

4.0 SPECIAL-STATUS PLANTS

4.1 Background Review for Special-status Plants

Prior to conducting the field reconnaissance, a focused review of literature and data sources was conducted to identify special-status plant species with a potential to occur in the study area. Sources reviewed included California Natural Diversity Database (CNDDB, 2021) occurrence records for the Petaluma USGS 7.5' quadrangle and the quadrangles surrounding it.

Based on information from the above sources, a target list of special-status plants with potential to occur in the vicinity of the study area was developed (Table 1). Special-status plants occurring with a 1- and 5- mile radius of the project site are illustrated on Figure 2.

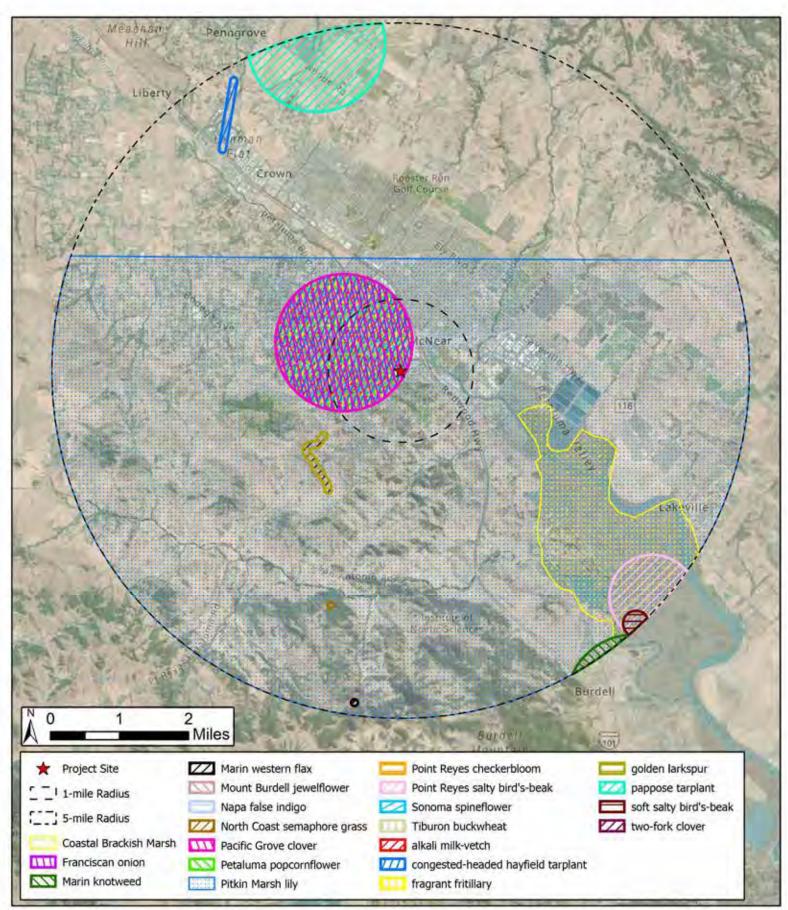
On February 4, 2021 a reconnaissance level survey of the site was conducted. The site was walked on foot and habitats characterized. The site is primarily dominated by non-native grasses, ornamentals, non-native blackberry, plum and palm trees and oaks.

4.2 Special-status Plants

Species associated with grasslands and disturbed areas have the potential to occur on the project site. Therefore, rare plant surveys are recommended for species with a moderate potential to occur on site the spring prior to ground disturbance.

4.3 Oaks

Several oak trees occur on the site especially along the southern property boundary. These include coast live oak (*Quercus agrifolia*) and valley oak (*Quercus lobata*). Potential impacts to oak trees and associated mitigation will be addressed in a separate report.





2246 Camino Ramon San Ramon, CA 94583 Figure 2: CNDDB Plant Occurrences Within 5-miles of Vartnaw Landing Petaluma, California

5.0 SPECIAL-STATUS ANIMALS

5.1 Background Review and Field Assessment for Special-status Animals

The California Department of Fish and Wildlife's Natural Diversity Database (CNDDB) was reviewed (Petaluma River and surrounding quadrangles) to identify special-status species potentially occurring on or in the vicinity of the project site. Based on information from the above sources, a target list of special-status animals with potential to occur in the vicinity of the study area was developed (Table 1).

5.2 Results

Special-status animal species occurring within a 1- and 5-mile radius of the project site are illustrated on Figure 3.

The trees, shrubs, and grasslands and structures on the project site provide nesting habitat for a variety of birds. The mature trees and structures on the property provide potential habitat for roosting special-status bats as well.

5.2.1 Nesting Birds and Raptors

The trees on the site provide habitat for a variety of nesting birds and raptors. Birds and raptors are protected under the federal Migratory Bird Treaty Act (50 CFR 10.13). Their nest, eggs, and young are also protected under California Fish and Wildlife Code (§3503, §3503.5, and §3800). In addition, raptors such as the white-tailed kite (*Elanus leucurus*) are "fully protected" under Fish and Wildlife Code (§3511). Fully protected raptors cannot be taken or possessed (that is, kept in captivity) at any time.

5.2.2 Special-status Bats

The trees and structures, particularly the old barn, provide potential roosting habitat for various special-status bat species known to occur in the project region including but not limited to pallid bat (*Antrozous pallidus*), Pacific western big- eared bat (*Corynorhinus townsendii townsendii*), and long-eared myotis (*Myotis evotis*). These bat species are California Species of Special Concern and may roost in mature trees, snags, crevices, cavities, and foliage within this habitat. Maternity roosting for bats is April through November.

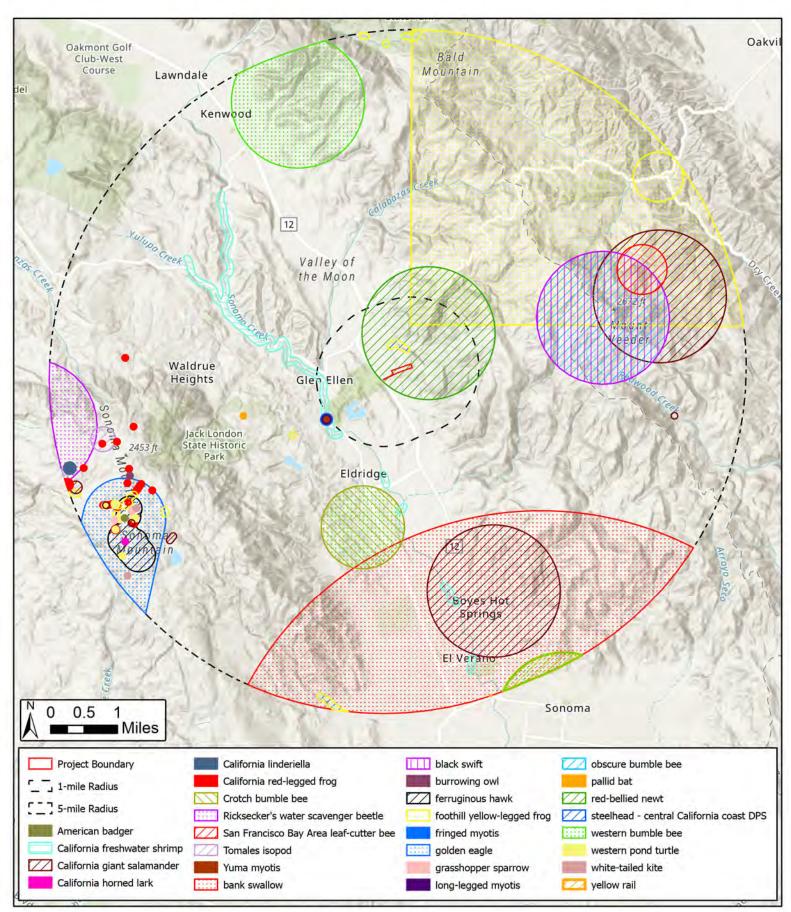




Figure 2: CNNDB Wildlife Occurrences Within 5-miles of 14005 Highway 12 Glen Ellen, California

Table 1. Special-status plant species with potential to occur in the vicinity of 149 McNear Ave & Petaluma Blvd. S, Petaluma, Sonoma County

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
Franciscan onion (Allium peninsulare var. franciscanum)	CRPR 1B.2	Clay soil, volcanic or serpentine substrate; cismontane woodland, valley and foothill grassland.	May-June	Marginal habitat may occur on site. Low Potential
Napa false indigo (Amorpha californica var. napensis)	CRPR 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, North Coast coniferous forest.	April-July	Not observed during February 4, 2021 reconnaissance. No Potential
Bent-flowered fiddleneck (Amsinckia lunaris)	CRPR 1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland, openings in broadleaved upland forest.	March-June	Marginal habitat may occur on site. Low Potential
Marin manzanita (Arctostaphylos virgata)	CRPR 1B.2	Sandstone or granitic substrate; broadleafed upland forest, closed-cone coniferous forest, chaparral, North Coast coniferous forest.	December- March	No manzanita observed in area proposed for development. No Potential
Alkali milk-vetch (Astragalus tener var. tener)	CRPR 1B.2	Alkaline, often adobe clay soil; playas, vernal pools, alkali flats within valley and foothill grassland, coastal salt marsh.	March-June	Suitable habitat not present. No Potential
Big-scale balsamroot (Balsamorhiza macrolepis)	CRPR 1B.2	Chaparral, cismontane woodland, valley and foothill grassland, sometimes serpentine substrate.	March-July	Marginal habitat may occur on site. Low Potential

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence
				on Project Site
Sonoma sunshine	FE, SE, CRPR	Vernally moist to inundated places; vernal	February-April	No suitable habitat occurs in survey area.
(Blennosperma bakeri)	1B.1	pools, valley and foothill grassland.		No Potential
Narrow-anthered brodiaea		Gravelly soil (?), volcanic substrate (?); broadleafed upland forest, chaparral,		Suitable substrate not present.
(Brodiaea leptandra [B. californica var. leptandra])	CRPR 1B.2	cismontane woodland, lower montane coniferous forest, valley and foothill grassland.	May-July	Low Potential
Seaside bittercress		Occurs usually in wetlands, occasionally in		Suitable substrate not present.
(Cardamine angulata)	CRPR 2B.1	non-wetlands. Redwood forest and mixed Evergreen forest	April-June	No- Potential
Tiburon paintbrush	FE, ST, CRPR	Rocky soil, serpentine substrate; valley and	April-June	Suitable substrate not present.
(Castilleja affinis var. neglecta)	1B.2 footh	foothill grassland.	Aprili-Julic	No Potential
Rincon Ridge ceanothus	CRPR 1B.1	Dry sites, volcanic or serpentine substrate; closed-cone coniferous forest, chaparral,	February-June	No ceanothus observed during February 4, 2021 reconnaissance.
(Ceanothus confusus)	CITI II II.I	cismontane woodland.	, , , , , , , , , , , , , , , , , , , ,	No Potential
Nicasio ceanothus				No ceanothus observed during
(Compathum documentum)	CRPR 1B.2	Serpentinite, rocky, sometimes clay. Chaparral (maritime)	March-May	February 4, 2021 reconnaissance.
(Ceanothus decornutus)				No Potential
Mason's ceanothus	SR, CRPR 1B.2	Rocky places, serpentine substrate;	March-May	No ceanothus observed during February 4, 2021 reconnaissance.
(Ceanothus masonii)	, -	openings in chaparral.	, , , , , , , , , , , , , , , , , , , ,	No Potential
Pappose tarplant		Vernally moist sites, often alkaline soil;	May-	No suitable habitat occurs in survey
(Centromadia [Hemizonia] parryi ssp. parryi)	CRPR 1B.2	chaparral, coastal prairie, meadows, coastal salt marshes, valley and foothill grassland.	November	area.

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site	
				No Potential	
Point Reyes bird's-beak (Chloropyron maritimum ssp. palustre)	CRPR 1B.2	Coastal salt marshes.	May-October	No suitable habitat occurs in survey area. Low Potential	
Soft bird's- beak	FE, SR, CRPR 1B.2	Coastal salt marshes.	July-November	No suitable habitat occurs in survey area.	
(Chloropyron molle ssp. molle)				No Potential	
Sonoma spineflower	FE, SE, CRPR 1B.1	Sandy soil, coastal prairie.	June-August	Suitable substrate not present.	
(Chorizanthe valida)	1D.1		No Potential		
Mt. Tamalpais thistle	CRPR 1B.2	Serpentinite seeps. Broadleafed upland forest, chaparral and meadows and seeps.	May-August	No suitable habitat occurs in survey area.	
(Cirsium hydrophilum var. vaseyi)					No Potential
Baker's larkspur	FE, SE, CRPR 1B.1	Decomposed shale substrate; broadleafed upland forest, coastal scrub, valley and foothill grassland, possibly sometimes	March-May	Suitable substrate probably does not occur in survey area.	
(Delphinium bakeri)	16.1	disturbed areas (e.g., fence lines).		Low Potential	
Golden larkspur	FE, SR, CRPR	± moist places, rocky soil, generally north- facing slopes; chaparral, coastal prairie,	March-May	No suitable habitat occurs in survey area.	
(Delphinium luteum)	1B.1	coastal scrub.		No Potential	
Western leatherwood	CRPR 1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, North Coast	Jan-Mar (Apr)	No suitable habitat occurs in survey area.	
(Dirca occidentalis)		coniferous forest, and Cismontane woodland.		No Potential	
Dwarf downingia	CRPR 2B.2	Vernal pools, vernally moist places in valley and foothill grassland, sometimes ditches.	March-May	Suitable substrate not present.	

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
(Downingia pusilla)				No Potential
Tiburon buckwheat (Eriogonum luteolum var. caninum)	CRPR 1B.2	Sandy or gravelly soil, serpentine substrate; chaparral, coastal prairie, valley and foothill grassland, cismontane woodland.	May- September	Suitable substrate not present. No Potential
Marin checker lily (Fritillaria lanceolata var. tristulis)	CRPR 1B.1	Sometimes rock outcrops, often serpentine substrate; coastal bluff scrub, coastal prairie, coastal scrub, riparian habitats (?).	February- May	Suitable substrate not present in survey area. No Potential
Fragrant fritillary (Fritillaria liliacea)	CRPR 1B.2	Generally heavy clay soil, often serpentine substrate; cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland.	February-April	Suitable substrate not present. No Potential
Woolly-headed gilia (Gilia capitata ssp. tomentosa)	CRPR 1B.1	Rocky places, rock outcrops, serpentine substrate; coastal bluff scrub, valley and foothill grassland.	May-July	Suitable substrate probably does not occur in survey area. Outside known range. Low Potential
Congested-headed hayfield tarplant (Hemizonia congesta ssp. congesta)	CRPR 1B.2	Grassy places, often disturbed areas, fallow fields, other ruderal areas; valley and foothill grassland, coastal scrub.	April- November	Grasslands provide potential habitat. Moderate Potential
Marin western flax (Hesperolinon congestum)	FT, ST, CRPR 1B.1	Sometimes barrens, serpentine substrate; valley and foothill grassland, chaparral.	April-August	Suitable substrate probably does not occur in survey area. Low Potential
Thin-lobed horkelia (Horkelia tenuiloba)	CRPR 1B.2	Moist places, open areas, sandy soil; broadleafed upland forest, chaparral, coastal scrub, valley and foothill grassland.	May-July (August)	Suitable substrate not present. No Potential
Burke's goldfields (Lasthenia burkei)	FE, SE, CRPR 1B.1	Wet or moist (at least vernally) places; generally vernal pools and swales, sometimes meadows.	April-June	Suitable substrate not present in survey area.

Plant Species	Status ¹	Habitat ²	Flowering	Potential for Occurrence
·			Period	on Project Site
				No Potential
Contra Costa goldfields	FE, CRPR 1B.1	Vernally moist, open, low-lying places, sometimes alkaline soil; vernal pools, wet meadows, valley and foothill grassland,	March-June	Suitable substrate not present in survey area.
(Lasthenia conjugens)		cismontane woodland, alkaline playas.		No Potential
Legenere	CRPR 1B.1	Vernal pools and swales.	April-June	No suitable habitat on site.
(Legenere limosa)				No Potential
Jepson's leptosiphon	CRPR 1B.2	Usually volcanic soil (sometimes periphery of serpentine), chaparral, cismontane	March-May	Suitable habitat not present.
(Leptosiphon [Linanthus] jepsonii)		woodland.		No Potential
Tamalpais lessingia	CRPR 1B.2	Usually serpentine substrate, often roadsides, thin gravelly soil (?); chaparral,	(June) July- October	Suitable habitat not present.
(Lessingia micradenia var. micradenia)		valley and foothill grassland.		No Potential
Pitkin marsh lily	FE, SE, CRPR 1B.1	Saturated places, sandy soil; cismontane woodland, meadows and seeps, freshwater	June-July	Suitable habitat not present.
(Lilium pardalinum ssp pitkinense)		marshes.		Low Potential
Sebastopol meadowfoam	FE, SE, CRPR 1B.1	Seasonally wet places, poorly drained, clay or sandy soil; meadows, valley and foothill	April-May	Suitable su bstrate not present.
(Limnanthes vinculans)	10.1	grassland, vernal pools.		No Potential
Cobb Mountain lupine	CRPR 1B.2	Open wooded areas, gravelly soil; broadleafed upland forest, chaparral,	March-June	Suitable substrate not present.
(Lupinus sericatus)	ON N 15.2	cismontane woodland, lower montane coniferous forest.		No Potential
Marsh microseris	CRPR 1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill	April-June (July)	Suitable habitat not present on project site.
(Microseris paludosa)		grassland.	,,	No Potential
Baker's navarretia	CRPR 1B.1	Seasonally moist places, cismontane woodland, meadows and seeps, vernal	April-July	Suitable habitat not present.

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence
			1 61100	on Project Site
(Navarretia leucocephala ssp. bakeri)		pools, valley and foothill grassland, lower		No Potential
Marin County navarretia		montane coniferous forest.		Suitable habitat.b not present.
Ivialili Coulity Havalletia	CRPR 1B.2	Chaparral, closed-cone Pine forest.	May-July	Sultable Habitat.b Hot present.
(Navarretia rosulata)	CRFR 1B.2	Chaparrai, closed-cone rine forest.	iviay-suly	No Potential
Petaluma popcorn-flower				Suitable habitat not present on project
r etaluma popcom-nower	CRPR 1A	Wet places; valley and foothill grassland,	May-July	site.
(Plagiobothrys mollis var. vestitus)		coastal salt marshes (?).	liviay sary	
(Low Potential
North Coast semaphore grass		Moist to wet, open or partly shaded places; broadleafed upland forest, meadows and		Suitable habitat not present on project site.
	ST, CRPR 1B.1	seeps, North Coast coniferous forest,	March-June	site.
(Pleuropogon hooverianus)		freshwater marsh.		No Potential
Marin knotweed			(April) May-	Suitable habitat not present on project
Walli Miotweed	CRPR 3.1	Coastal salt or brackish marshes.	August	site.
(Polygonum marinense)	CIVI IV 3.1	Soustal sale of Staskish marshes.	(October)	
				Low Potential
Tamalpais oak	CRPR 1B.3	Near watersheds.	March-April	Not present on site.
(Quercus parvula var. tamalpaisensis)	CRFR 1B.5	iveal watersheus.	Water-April	No Potential
				Suitable habitat not present on project
Point Reyes checkerbloom	CRPR 1B.2	Freshwater marsh.	April-	site.
(Sidalcea calycosa ssp. rhizomata)	CIVER 10.2	Trestiwater maisii.	September	
				No Potential
Marin checkerbloom	CDDD 4 D 4			Suitable habitat not present.
(Sidalcea hickmanii ssp. viridis)	CRPR 1B.1	Chaparral.	May-June	No Potential
Two-fork clover				Suitable substrate not present on
	FE, CRPR 1B.1	Moist open sites, heavy soil, sometimes	April-June	project site.
(Trifolium amoenum)	,	serpentine substrate, sometimes roadsides		

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
		or eroded areas; coastal bluff scrub, valley and foothill grassland.		No Potential
Saline clover	CDDD 1D 3	Moist or seasonally moist sites, alkaline or saline soil; marshes and swamps (including	April-June	Suitable substrate not present on project site.
(Trifolium hydrophilum)	CRPR 1B.2	coastal salt marshes?), valley and foothill grassland, vernal pools.	Aprii-Julie	No Potential
Pacific Grove clover		Occurs usually in wetlands, occasionally in		Suitable habitat does not occur in survey area.
(Trifolium polyodont)	CRPR 1B.1	non-wetlands. Found in meadows.	April-June	No Potential No Potential
Oval-leaved viburnum	CRPR 2B.3	Often north-facing slopes; chaparral, cismontane woodland, lower montane	May-June	Suitable habitat does not occur in survey area.
(Viburnum ellipticum)	CITI IT ZD.J	coniferous forest.	(August)	No Potential

¹Plant listing status:

Federal (USFWS 2017a): FE – endangered; FT – threatened

State of California (CDFW 2017): SE- endangered; ST - threatened; SR - rare

California Rare Plant Rank (CRPR) (CNPS 2016): CRPR 1A: Presumed extinct in California. CRPR 1B: Rare, Threatened, or Endangered in California and elsewhere. CRPR 2B: Rare, Threatened, or Endangered in California, more common elsewhere. CRPR 3: Plants about which more information is needed.

CRPR Threat Code extensions: .1: Seriously endangered in California. .2: Fairly endangered in California. .3 Not very endangered in California.

Table 2 - Special-status animal species with potential to occur in the vicinity of 149 McNear Ave & Petaluma Blvd. S Petaluma, Sonoma County, California

Animal*	Status	Habitat	Potential for Occurrence on of In Vicinity of Site
Amphibians and Reptiles			
California tiger salamander	FE ¹ , FT	Needs underground refuges especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	No potential. No suitable habitat on site. Not within
(Ambystoma californiense)			critical habitat.
Western pond turtle	FSC, CSC	Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites, nest sites may be found up to 0.5 km from	No potential. No suitable habitat on site.
(Emmys marmorata)		water.	
California red-legged frog	FT, CSC	Lowlands and foothills in or near permanent sources of deepwater with dense, shrubby or emergent riparian vegetation.	No potential. No suitable habitat on site.
(Rana aurora draytonii)			
Foothill yellow-legged frog	CSC in	Partly shaded, shallow streams and riffles with a rocky substrate in a variety	No potential. No suitable
	Sonoma	of habitats.	habitat on site.
(Rana boylii)	Couny		
Red-bellied newt	CSC	Coastal drainages from Humboldt County to Sonoma County and inland to Lake County. Lives in terrestrial habitats and typically breeds in streams	No potential. No suitable habitat on site.
(Taricha rivularis)		with moderate flow and clean, rocky substrate.	

¹ Listed as federally endangered in Sonoma County (Santa Rosa Plain) and Santa Barbara counties.

Status	Habitat	Potential for Occurrence on of In Vicinity of Site
CSC	Known from coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. Adults may be found under rocks, logs and other debris adjacent to water sources. Aquatic larvae are found in cold, clear streams, sometimes in lakes or ponds	No Potential. No suitable habitat on site.
FT, NMFS	Anadromous. Adults and fry recorded in upstream portions of creeks north of San Pablo Bay. Juveniles may rear in lower reaches of larger river systems and Bay before moving out to sea.	No Potential. No suitable habitat on site.
FE, SE, NMFS	Federal listing includes populations between Punta Gorda and San Lorenzo River. State listing includes populations south of San Francisco Bay only. Occurs inland and in coastal marine waters. Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	No Potential. No suitable habitat on site.
	CSC FT, NMFS	CSC Known from coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. Adults may be found under rocks, logs and other debris adjacent to water sources. Aquatic larvae are found in cold, clear streams, sometimes in lakes or ponds FT, NMFS Anadromous. Adults and fry recorded in upstream portions of creeks north of San Pablo Bay. Juveniles may rear in lower reaches of larger river systems and Bay before moving out to sea. FE, SE, NMFS Federal listing includes populations between Punta Gorda and San Lorenzo River. State listing includes populations south of San Francisco Bay only. Occurs inland and in coastal marine waters. Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and

Animal*	Status	Habitat	Potential for Occurrence on of In Vicinity of Site
Sacramento Splittail (Pogonichthys macrolepidotus)	CSC	Prefers shallow water habitat in slow-moving sections of rivers and sloughs. Found primarily in Delta, Suisun Bay, Suisun Marsh, Napa River, occasionally Petaluma River. Primarily a freshwater fish but tolerant of moderate salinity. Spawns on submerged vegetation in temporarily flooded upland and riparian habitat.	No potential. No suitable habitat on site.
Birds**			
Tricolored blackbird (Agelaius tricolor)	CSC	Colonial nester. Most numerous in the Central Valley & Vicinity. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	No Potential. No suitable habitat on site.
Grasshopper sparrow (Ammodramus savvanrum)	CSC	Dense grasslands in rolling hills, lowland plains, in valleys and on hillsides on lower desert mountain slopes. Favors native grasses when nesting.	No Potential. No suitable habitat on site.
Burrowing owl (Athene cunicularia)	CSC	Open, dry annual or perennial grasslands; deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent on burrowing animals, most notably the California ground squirrel.	No Potential. No ground burrows observed during February 2021 assessment. Site is surrounded by development.

Animal*	Status	Habitat	Potential for Occurrence on of In Vicinity of Site
Golden eagle (Aquila chrysaetos)	FP,	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most part of its range although large tree in open areas, may be used.	No potential. No suitable habitat on site.
Swainson's hawk (Buteo swainsoni)	ST	Breeds in stands with few trees in juniper-sage flats, riparian areas and in oak savannah. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain field supporting rodent populations.	No potential. No suitable habitat on site.
Western snowy plover (Charadrius alexandrinus nivosus)	FT, CSC	Sandy beaches, salt ponds levees and shores of alkali flats.	No potential. No suitable habitat on site.
Western yellow billed cuckoo (Coccyzus americanus occidentalis)	FC, SE	(Nesting) Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with low story of blackberry, nettles or wild grape.	No potential. No suitable habitat on site.
Black swift (Cypseloides niger)	CSC	(Nesting) coastal belt of Santa Cruz & Monterey County; central and southern Sierra Nevada; San Bernadino and San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf.	No potential. No suitable habitat on site.
White-tailed kite (Elanus leucurus)	FP	(Nesting) rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland.	Low potential. Site is small and surrounded by development.

Animal*	Status	Habitat	Potential for Occurrence on of In Vicinity of Site
Saltmarsh common yellowthroat (Geothlypis trichas sinuosa)	FSC, CSC	Mostly breeds and winters in wet meadows, fresh emergent wetland, and saline emergent wetland habitats in the San Francisco Bay region. Microhabitat includes thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	No potential. No suitable habitat on site.
Bald eagle (Haliaeetus leucocephalus)	SE	Ocean shore, lake margins, and rivers both for nesting and wintering within one mile of water. Nests in large, old growth or dominant live tree with open branches, especially Ponderosa pine.	No potential. No suitable habitat on site.
Yellow rail	BCC, CSC	Summer resident in eastern Sierra Nevada in Mono County, breeding in shallow freshwater marshes and wet meadows with dense vegetation.	No potential. No suitable habitat on site.
(Coturnicops noveboracensis)			
California black rail	FSC, ST	Mainly inhabits salt marshes bordering larger bays. Microhabitat includes tidal salt marsh, freshwater and brackish marshes, all at low elevations.	No potential. No suitable habitat on site.
(Laterallus jamaicensis coturniculus)			
San Pablo song sparrow	CSC	Residents of salt marshes along the north side of San Francisco and San Pablo Bays.	No potential. No suitable habitat on site.
(Melospiza melodia samuelis)			
California Ridgway's rail	FE, SE	Salt-water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Microhabitats associated with abundant growths of	No potential. No suitable habitat on site.
(Rallus obsoletus)		pickleweed but feeds away from cover on invertebrates from mud- bottomed sloughs.	
Bank swallow	ST	(Nesting) Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks or cliffs with fine-	No potential. No suitable habitat on site.
(Riparia riparia)		textured/sandy soils near streams, river, lakes, and ocean to dig nest hole.	

Animal*	Status	Habitat	Potential for Occurrence on of In Vicinity of Site
Mammals			
Pallid bat	CSC, WGWB High Priority	Deserts, grasslands, woodlands and forests. Most common in open dry habitats with rocky areas for roosting. Very	Potential for occurrence.
(Antrozous pallidus)		sensitive to disturbance of roosting sites.	
Townsend's big-eared bat	CSC	Throughout California in a variety of habitats. Roosts in the open, hanging from walls and ceilings. Roosting sites	Moderate Potential. Potential for occurrence due to existing structures on site.
(Corynorhinus townsendii)		limiting. Extremely sensitive to human disturbance.	
Hoary bat	WBWG Medium	Prefers open forested habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges	Low to Moderate Potential. Potential for roosts in larger oak trees on site.
(Lasiurus cinereus)	Priority	for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	
Fringed myotis	WGWB High Priority	Associated with a wide variety of habitats including dry woodlands, desert scrub, mesic coniferous forest, grassland, and sage-grass steppes. Buildings, mines and	Moderate Potential. Potential for roosts in larger oak trees on site and buildings.
(Myotis thysanodes)		large trees and snags are important day and night roosts.	
Long-legged myotis	WBWG High Priority	Primarily found in coniferous forests, but also occurs seasonally in riparian and desert habitats. Large hollow trees, rock crevices and buildings are important day	Moderate Potential. Potential for roosts in larger oak trees on site and buildings.
(Myotis Volans)		roosts. Other roosts include caves, mines and buildings.	
Point Reyes mountain beaver	CSC	Occurs only in western Marin County, almost entirely within Point Reyes National Sea shore. Found on moist,	No suitable habitat on site.
(Aplodontia rufa phaea)		north-facing slopes within areas of coastal scrub. Lives in burrow systems and forages on a variety of herbaceous plants.	No potential.

Animal*	Status	Habitat	Potential for Occurrence on of In Vicinity of Site
Salt-marsh harvest mouse	FE, SE	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat.	No suitable habitat on site.
(Reithrodontomys raviventris)			No potential.
American badger	CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Low Potential. No badger burrows observed during February 2021 reconnaissance. Site is surrounded
(Taxidea taxus)			by development.
Suisun shrew	CSC	Tidal marshes of the northern shores of San Pablo and Suisun bays. Require dense low-lying cover and driftwood	No suitable habitat on site.
(Sorex ornatus sinuosus)		and other litter above the mean high tide line for nesting and foraging.	No potential.
Invertebrates			
Tomales roach	CSC	Habitat generalists. Tolerant of relatively high temperatures and low oxygen levels, however unable to	No suitable habitat on site.
(Lavinia symmetricus)		tolerate very saline water. Tributaries to Tomales Bay.	No potential.
California freshwater shrimp	FE, SE	Endemic to Marin, Napa, and Sonoma counties. Found in low gradient streams where riparian cover is moderate to	No suitable habitat on site.
(Syncaris pacifica)		heavy	No potential.

^{*}Note: FSC = U.S. Fish and Wildlife Service Species of Concern; FE = federally listed as endangered; FT = federally listed as threatened; SE = state listed as endangered; ST = state listed as threatened; SFP = State fully protected (may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW). CSC = California species of special concern; CDFS = considered sensitive by the California Department of Forestry. WBWG (Western Bat Working Group) high priority = represents those species considered the highest priority for funding, planning, and conservation actions. These species are imperiled or are at high risk of imperilment.

^{**}All migratory birds are protected by the Migratory Bird Treaty Act (50 CFR 10), which makes it unlawful to take, possess, buy, sell, purchase or barter any migratory bird, including feathers or other parts, nests, eggs or products, except as allowed by implementing regulations (50 CFR 21). In addition, Section 2080 of

the California Fish and Game Code prohibits the killing of a listed species, and Sections 3503, 3503.5, and 3800 of the Fish and Game Code prohibit the take, possession, or destruction of birds, their nests, or eggs.

Table compiled based on review of California Department of Fish and Wildlife Natural Diversity Database for the Petaluma River and surrounding USGS quadrangles. February 2021.

6.0 RECOMMENDATIONS AND MITIGATION MEASURES.

The following mitigation measures are recommended for avoiding potential impacts to special-status species potentially occurring on or in the vicinity of the project site.

6.1 Special-status Plants

Special status plants associated with grassland habitats listed in Table 1 as having a moderate potential to occur on the site should be surveyed for the spring prior to ground disturbance associated with project construction.

6.2 Nesting Birds

- If initial ground disturbance or vegetation removal occurs during the breeding season (February 1 through August 31), a qualified biologist will conduct a breeding bird survey no more than 7 days prior to ground disturbance to determine if any birds are nesting in trees adjacent to the study area.
- If active nests are found close enough to the study to affect breeding success, the biologist will establish an appropriate exclusion zone around the nest. This exclusion zone may be modified depending upon the species, nest location, and existing visual buffers. Once all young have become independent of the nest, vegetation removal and grading may take place in the former exclusion zone.
- If initial ground disturbance is delayed or there is a break in project activities of greater than 7 days within the bird-nesting season, then a follow-up nesting bird survey should be performed to ensure no nests have been established in the interim.

6.3 Maternity Roosting Bats

- If initial ground disturbance occurs during the bat maternity roosting season (May 1 through August 31), a qualified biologist will conduct a bat roost assessment of trees within 100 feet of the Study area.
- If the biologist determines there is potential for maternity roosting bats to be present within 100 feet of the Study area, nighttime emergence surveys should be performed to determine if maternity roosting bats are present.
- If bat maternity roosts are present, the biologist will establish an appropriate exclusion zone around the maternity roost.

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Appendix A - Plant Species Observed on Site February 4, 2021

Common name	Scientific name
Coast live oak Valley oak California bay Redwood Plum Palm Olive	Quercus agrifolia Quercus lobata Umbellularia californica Sequoia sempervirens Prunus spp. Phoenix carieensis Olea europea
Coyote bush Poison oak Fennel Flat-nut sedge Oat Yellow star thistle Sheep sorrel Italian thistle	Baccharis pilularis Toxicodendron diversilobum Foeniculum vulgare Cyperus eragrostis Avena sp. Centaurea solstitialis Rumex acetosella Carduus pycnocephalus

Appendix B – Wetland Data Sheets

Applicant/Owner: Goff McConvestigator(s): Local Macroniandform (hillslope, terrace, etc.):						
andform (hillslope, terrace, etc.):		_ Local relief (c	oncave, convex nor	iel. Doc	24	
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re Vegetation, Soil, or Hydrolog	/ naturally or	oblomatica 1	Are Normal Circ	umstances" p	resent? Yes	No
UMMARY OF FINDINGS Attack	- naturally pr	obiernatic?	(If needed, expla	in any answei	rs in Remarks.)	
UMMARY OF FINDINGS - Attach si	te map showing	sampling p	point locations,	transects	important fea	tures. e
ydrophytic vegetation Present? Yes	No					
Hydric Soil Present? Yes _	No No		ampled Area			
	No			Yes	No	
Rainfall hower	ier has	bern	Lee -	D .		
			1522 39	う一家へ		
EGETATION						
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			That Are O	BL, FACW, or	FAC:	(A)
				er of Domina		
			Species Ac	ross All Strata	i:	(B)
T-	tal Cover:		Percent of I	Dominant Spe		
Paris Office Office Office			That Are O	BL, FACW, or	FAC:	(A/B
			D	Index works		
			T-4-100	Cover of:		
			ODI amania		x 1 =	у
			FACW spec	ies	x 2 =	-
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ato Straturii	al Cover:		FACU speci	es	x 4 =	
grasses	100	Y NI	A UPI species		x5=	
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			Denvel	nce Index is ≤		
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			data	in Remarks or	on a separate she	et)
ody Vine Stratum	al Cover:		Problem	atic Hydrophy	tic Vegetation ¹ (Ex	plain)
			1 Indicators =	hudrin"		
			be present.	nyunc son an	d wetland hydrolog	y must
Tota	Cover:		Hydrophytic			
Bare Ground in Herb Stratum9		•	Vegetation			
narks:	Sover of Biotic Cru	SI	Present?	Yes _	No	
grass not f			1			
INVESTS AS I	The Dill A	20	can't	ID		

Profile Description: (Describe to the death and the	Sampling Point:
Profile Description: (Describe to the depth needed to document th	e indicator or confirm the absence of indicators)
(inches) Color (moist) % Color (moist) %	ires
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1000	- sith clay load Brighter
T	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Locatio	on: PL=Pore Lining, RC=Root Channel, M=Matrix.
History (A4)	oted.) Indicators for Problematic Hydric Soils ³ :
Histosof (A1) — Sandy Redox (S5)	1 cm Muck (AQ) (LBB C)
Pleak Histis (80)	2 cm Muck (Ado) (I pp =:
— Loarny Mucky Miner	al (F1) Reduced Vertice (F40)
Strotified I Loanly Gleyed Matrix	X (F2) Red Parent Material (TF2)
1 cm Muck (A9) (LRR D)	Other (Evalsis is B
Depleted Below Dark Surface (A11)	(F0)
Endoy Depressions	(F8)
Sandy Mucky Mineral (S1) Vernal Pools (E0)	
Sandy Gleyed Matrix (S4)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present.
Restrictive Layer (if present):	wedaha nyarology must be present.
Type:	
Depth (inches):	Hydric Soil Present? Voc
Depth (inches):	Hydric Soil Present? Yes No
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Depth (inches): Remarks: no motting or o	exidized rhizospheres
Depth (inches): Remarks: no matting or of the company of t	Secondary Indicators (2 or more required)
Depth (inches): Remarks: no motting or o YDROLOGY Vetland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	exidized rhizospheres
Depth (inches): Remarks:	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) d Iron (C4) Crayfish Burrows (C8)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Ior (C1) Dry-Season Water Table (C2) Thin Muck Surface (C7) d Iron (C4) Crayfish Burrows (C8) In in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) d Iron (C4) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) marks) Shallow Aquitard (D3)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Ior (C1) Dry-Season Water Table (C2) Thin Muck Surface (C7) d Iron (C4) Crayfish Burrows (C8) In in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) d Iron (C4) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) marks) Shallow Aquitard (D3)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) d Iron (C4) Crayfish Burrows (C8) on in Plowed Soils (C6) Marks) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) eld Observations: Jurface Water Present? Yes No Depth (inches): Jurface Water Present? Yes No Depth (inches): Jurface Water Present? Yes No Depth (inches): Jurface Water Present? Yes No Depth (inches): Jurface Water Present? Yes No Depth (inches): Jurface Water Present? Yes No Depth (inches): Jurface Water Present? Yes No Depth (inches): Jurface Water Present? Yes No	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) d Iron (C4) Crayfish Burrows (C8) on in Plowed Soils (C6) Marks) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) d Iron (C4) Crayfish Burrows (C8) on in Plowed Soils (C6) Marks) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)

Project/Site: Vartnaw Landi	Og City	v/County: P	alona CA Sampling Date: 2/4/2
Applicant/Owner: Geoff McCow	vic	,	State: Sampling Point: 2
Investigator(s): Local Macmilla	Se	ction Township R	Sampling Point:
Landform (hillslope, terrace, etc.):	Lo	cal relief (concave	e, convex, none): Slope (%): 1-2
Subregion (LRR):	Lat:	carrener (concave	Slope (%): Slope (%): Datum:
Soil Map Unit Name: Yolo Clay 1	20 M	-60120	Long: Datum:
Are climatic / hydrologic conditions on the site typical for	this time of year?	V / 11	NWI classification:
Are Vegetation Soil or Hydrology	significantly dist	Yes No	(If no, explain in Remarks) "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	_ significantly dist	are Are	"Normal Circumstances" present? Yes No
SUMMARY OF FINDINGS	_ naturally proble	matic? No (If r	needed, explain any answers in Remarks.)
SOMMARY OF FINDINGS - Attach site ma	p showing sa	impling point	locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes	No_V		N. 4477
Hydric Soil Present? Yes	No	Is the Sample	
vvetland Hydrology Present? Yes	No		and? Yes No
Remarks: Rainfail however	has t	ern le	55 50 for
Language and the second			
/EGETATION			
Troo Streture // les seinets	Absolute Do	ominant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.)	% Cover S	oecies? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC:(A)
2			Total Number of Dominant
3 4.			Species Across All Strata: (B)
4Total Cox	/er:		Percent of Dominant Species
Sapility/Strub Stratum			That Are OBL, FACW, or FAC: (A/B)
1.			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3			OBL species x1 =
4			FACW species x 2 =
5Total Cov			FAC species x3 = 180
lerb Stratum	er:	UPL	FACU species x 4 =
Lilly (cultivar)	30	1 NA	UPL species 30 x 5 = 150 (B)
Vinca major	10 1	1 UPL	Column Totals: (A) 330 (B)
			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
			Dominance Test is >50%
			Prevalence Index is ≤3.0¹
			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Total Cov.	40	_	Problematic Hydrophytic Vegetation¹ (Explain)
Voody Vine Stratum	er.		(Explain)
Rubus armeniarus	60	Y FAC	¹ Indicators of hydric soil and wetland hydrology must
			be present.
Total Cove	er: <u>(00</u>		Hydrophytic
% Bare Ground in Herb Stratum % Cove	er of Biotic Crust	d	Vegetation Present? Yes No
Remarks:	A A SAN TO A	7	NO

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S	amn	lina	Point	

Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type ¹ L	Tromanto
0-16 10 YR3/2 100		sity clay loam
		
		_
Type: C=Concentration, D=Depletion, RM=Re	educed Matrix. ² Location: PL=Pore Lir	ning, RC=Root Channel, M=Matrix.
lydric Soil Indicators: (Applicable to all LR	Rs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
_ Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D)	Depleted Matrix (F3)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Depleted Dark Surface (F7)	
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	2
Sandy Midcky Milleral (S1) Sandy Gleyed Matrix (S4)	Vernal Pools (F9)	³ Indicators of hydrophytic vegetation and
Restrictive Layer (if present):		wetland hydrology must be present.
Type:		
1,700.	-	
Donth (inches)		
Depth (inches):	mothes	Hydric Soil Present? Yes No
no ors or	mothes	Hydric Soil Present? Yes No
Pemarks:	mothes	Hydric Soil Present? Yes No
YDROLOGY Wetland Hydrology Indicators:		Hydric Soil Present? Yes No
Remarks:		Secondary Indicators (2 or more required)
YDROLOGY Vetland Hydrology Indicators: rimary Indicators (any one indicator is sufficient Surface Water (A1)		Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Pemarks: NO OVO OPPOROLOGY Vetland Hydrology Indicators: rimary Indicators (any one indicator is sufficient	nt)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
POROLOGY Wetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3)	nt) Salt Crust (B11)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (any one indicator is sufficier Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
POROLOGY Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7)
Portion of the control of the contro	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8)
POROLOGY Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9)
Portion of the control of the contro	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
POROLOGY Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9)
POROLOGY Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
POROLOGY Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) ield Observations: urface Water Present? Yes No	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) ield Observations: urface Water Present? Yes No_ //ater Table	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
POROLOGY Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
POROLOGY Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Iteld Observations: urface Water Present? Yes No Vater Table Present? Yes No aturation Present? Yes No nocludes capillary fringe) escribe Recorded Data (stream gauge, monito	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
POROLOGY Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Iteld Observations: urface Water Present? Yes No Vater Table Present? Yes No aturation Present? Yes No nocludes capillary fringe) escribe Recorded Data (stream gauge, monito	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Iteld Observations: urface Water Present? Yes No Vater Table Present? Yes No aturation Present? Yes No nocludes capillary fringe) escribe Recorded Data (stream gauge, monito	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)

Project/Site: Vartnaw Land	ing	City/County: Pet	alona CA Sampling Date: 24
Applicating Applic	MIC		State: OA Complian Daint 2
investigator(s).	10	Section, Township, F	Range:
_andform (nillslope, terrace, etc.):		I ocal relief (concave	CONVOY namely O
subregion (LRR):	Lat:		Long:
Soil Map Unit Name: Yolo Clay	loam	0-50/65	NWI classification:
are climatic / hydrologic conditions on the site typical fi	or this time of ver	or? Voc. / No	NVVI classification:
are Vegetation, Soil, or Hydrology	significantly	disturbed?	e "Normal Circumstances" present? Yes No _
re Vegetation, Soil, or Hydrology	naturally pro	blomatica Are	Normal Circumstances" present? Yes No_
I IMMARY OF FINDINGS	naturally pro	blematic? No (If	needed, explain any answers in Remarks.)
OWNER OF FINDINGS - Attach site m	nap showing	sampling point	locations, transects, important features,
Hydrophytic Vegetation Present? Yes			
Hydric Soil Present? Yes		Is the Sample	
Wetland Hydrology Present? Yes	No I		and? Yes No
Remarks: Rainfail however	- has	her - L	35 30 far
1 2011 1 1 2011		2000	35 76 781
EGETATION			
and the same	Absolute	Deminant la line	
Tree Stratum (Use scientific names.)	% Cover	Species? Status	The state of the s
1			Number of Dominant Species That Are OBL, FACW, or FAC:
			Total Number of Dominant Species Across All Strata: (B
Sapling/Shrub Stratum Total C	over:		Percent of Dominant Species That Are OBL, FACW, or FAC:
·			
			Prevalence Index worksheet:
			FACW species x 2 =
			FAC species <u>\$0</u> x3 = <u>240</u>
Total C	over:		FACU species x4 =
erb Stratum			UPL species 10 x 5 = 50
Vinca major	10	Y UOL	Column Totals: (A) 290 (I
			7
			Prevalence Index = B/A = 3.2
			Hydrophytic Vegetation Indicators:
			Dominance Test is >50%
			Prevalence Index is ≤3.0¹
			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Total Co	over:		Problematic Hydrophytic Vegetation¹ (Explain)
loody Vine Stratum	4.	NI THE	
Rubus armeniacus		1 THE	¹ Indicators of hydric soil and wetland hydrology must
			be present.
	over: <u>50</u>		Hydrophytic
	over of Biotic Cru	st	Vegetation Present? YesNo
emarks:			100

-	-		
-	7	ш	

Histosol (A1) Sandy Redox (S5) 1 cm M Histic Epipedon (A2) Stripped Matrix (S6) 2 cm M Black Histic (A3) Loamy Mucky Mineral (F1) Reduce Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Pa Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Wetland Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Surface Water (A1) Surface (A11) Sufficient) Surface Water (A1) Surface (A12) Saturation (A3) Aquatic Invertebrates (B13) Dirit (B12) Saturation (A3) Aquatic Invertebrates (B13) Dirit (Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) CSurface Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Inundation Visible on Aeral Imagery (B7) Other (Explain in Remarks)	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Public Public	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. 2 Location: PL=Pore Lining, RC=Root Channy dric Soil Indicators: Alistosol (A1)	
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	-
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Black Histic (A3) Loamy Mucky Mineral (F1) Reduce Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D) Depleted Matrix (F3) Loamy Gleyed Matrix (F2) 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (F6) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sardy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Setrictive Layer (if present): Type: Depth (inches): Pepth (inches): Biotic Crust (B12) Saturation (A3) Water Marks (B1) (Nonriverine) Defit Deposits (B3) (Nonriverine) Dirift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Water Present? Wetland Hydrology Wetland Hydrology Wetland Hydrology Wetland Hydrology Wetland Hydrology Wetland Hydrology Depth (inches): Urface Water Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Wetland Hydrology Wetland Hydrology Wetland Hydrology Wetland Hydrology Black Histic (R3) Water Table Present? Yes No Depth (inches): Depth (inches): Depth (inches): Jepth (inc	
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Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Epipedon (A2)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Epipedon (A2)	
Indicators Applicable to all LRRs, unless otherwise noted.) Indicators	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Epipedon (A2)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Epipedon (A2)	
Histosol (A1) Sandy Redox (S5) 1 cm M Histic Epipedon (A2) Stripped Matrix (S6) 2 cm M Black Histic (A3) Loamy Mucky Mineral (F1) Redox Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red P Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Bemarks: PYDROLOGY Vetland Hydrology Indicators: Vernal Pools (F9) Phydric Soil Hydric Soil Hydric Soil Wetland Hydrology Indicators: Secon Primary Indicators (any one indicator is sufficient) Short (B12) Saturation (A3) Aquatic Invertebrates (B13) Depth (Inches): Diff Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Till Diff Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) C Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Sill Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Furface Water Present? Yes No Depth (inches): Depth (inches): Depth (inches): Wetland Hydrology indicators in plowed Soils (C6) Depth (inches): Wetland Hydrology indicators in plowed Soils (C6) Sillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	nel, M=Matrix. for Problematic Hydric Soils ³ :
Histic Epipedon (A2) Black Histic (A3) Black Histic (A3) Loamy Mucky Mineral (F1) Reduce Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Balow Dark Surface (A11) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Vernal Pools (F9) Surface (F7) Type: Depth (inches): Depth (inches): Depth (inches): Vernal Pools (F9) Sandy Mucky Mineral (S1) Secontrianal Hydrology Indicators: Type: Depth (inches): Vertiand Hydrology Indicators: Timpary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Defith Deposits (B3) (Nonriverine) Dirift Deposits (B3) (Nonriverine) Dirift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Water Present? Ves No Depth (inches): Wetland Hydrology indicators: Vertianal Present? Ves No Depth (inches): Vertianal Province Indicators (A11) Wetland Hydrology indicators (A11) Presence of Reduced Iron (C4) Candidate Capillary Fringe) Vertianal Province Indicator (A11) Depth (inches): Vertianal Present? Ves No Depth (inches): Vertianal Province Indicator (A12) Vertianal Province Indicator (A12) Vertianal Province Indicator (A12) Depth (inches): Vertianal Province Indicator (A12) Depth (inches): Vertianal Province Indicator (A12) Depth (inches): Vertianal Province Indicator (A12) Secontrianal Province Indicator (A12) Secontrianal Province Indicator (A12) Secontrianal Province Indicator (A12) Secontrianal Province Indicator (A12) Seco	N. 19 - 19 - 19 - 19 - 19 - 19 - 19 - 19
Black Histic (A3) Loamy Mucky Mineral (F1) Reduce Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Pt Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Communication of the Communication	Muck (A9) (LRR C)
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Estrictive Layer (if present): Type: Depth (inches): Depth (inches): Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Defice A Surface (B13) Water Stained Leaves (B9) Indicators (B13) Water Alarks (B1) (Nonriverine) Defice A Surface (B13) Defice A Surface (B13) Water Stained Deposits (B2) (Nonriverine) Defice A Surface (B13) Defice A Surface (B13) Water Marks (B1) (Nonriverine) Defice A Surface (B13) Water Marks (B1) (Nonriverine) Defice A Surface (B13) Water Marks (B1) (Nonriverine) Defice A Surface (B13) Defice A Surface (B13) Water Marks (B13) (Nonriverine) Defice A Surface (B13) D	Muck (A10) (LRR B)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Indicators wetland Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Remarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B12) Depth (Inches): Depth (Inches): Double (B2) Salt Crust (B12) Depth (Inches): Depth (Inches): Double (B3) Nonriverine) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Sulnation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sind Other (Explain in Remarks) Find Other (Explain in Remarks) Sind Other (Explain in Remarks) Sin	ed Vertic (F18)
	arent Material (TF2)
Depleted Below Dark Surface (A11)	(Explain in Remarks)
Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Wetland Restrictive Layer (if present): Type: Depth (inches): Bemarks: Property Depth (inches): Depth (inches): Depth (inches): Second Depth (Inches): Surface Water (A1) Salt Crust (B11) Salt Crust (B12) Depth (Inches): Saturation (A3) Aquatic Invertebrates (B13) Depth (Inches): Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Till Deposits (B3) (Nonriverine) Depth (Inches): Surface Water (A1) Depth (Inches): Surface Water (A1) Sediment Deposits (B2) (Nonriverine) Depth (Inches): Sediment Deposits (B2) (Nonriverine) Depth (Inches): Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Sediment Deposits (B2) (Nonriverine) Depth (Inches): Surface Water Present? Yes No Depth (Inches): Surface Water Present? Yes No Depth (Inches): Wetland Hydrology (Noter) Depth (Inches): Wetland Hydrology (Noter) Depth (Inches): Wetland Hydrology (Noter) Depth (Inches): No Dep	
Sandy Mucky Mineral (S1) Vernal Pools (F9)	
Sandy Gleyed Matrix (S4) wetland Restrictive Layer (if present): Type: Depth (inches): Remarks: Primary Indicators: Secont	Carlo Walter Commercial
Restrictive Layer (if present): Type:	of hydrophytic vegetation and
Type:	hydrology must be present.
Popeth (inches):	
Primary Indicators (any one indicator is sufficient) Surface Water (A1) Surface Water (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Crust (B12) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Till Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Surface Water Present? Ves No Depth (inches): Surface Water Present? Ves No Depth (inches): Surface Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	. /
Vetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water Table Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Second Water (B11) Set Crust (B12) Day Biotic Crust (B12) Day Biotic Crust (B12) Double (B13) Double (B14)	Present? Yes No
Vetland Hydrology Indicators: Secondary Indicators (any one indicator is sufficient) Windicators (B1) Salt Crust (B11) Salt Crust (B12) DD High Water Table (A2) Biotic Crust (B12) D Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) D Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) TI Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) C Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Si Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Si Water-Stained Leaves (B9) Depth (inches): Wetland Hydrology Water Table Present? Yes No Depth (inches): Wetland Hydrology Vater Table Present? Yes No Depth (inches): Wetland Hydrology Vater Table Present? Yes No Depth (inches): Wetland Hydrology Vater Table Present?	
Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	adon Indiantoro (2 or more required)
Surface Water (A1) Salt Crust (B11) Solic Crust (B12) Depth (inches): Surface Water (A2) Salt Crust (B12) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	ndary Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Water Table Present? Ves No Depth (inches): Surface Water Present? Ves No Depth (inches): Seaturation Present? Ves	Vater Marks (B1) (Riverine)
Saturation (A3) Aquatic Invertebrates (B13) D Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) D Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) TI Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) C Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Si Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Si Water-Stained Leaves (B9) Other (Explain in Remarks) Si Surface Water Present? Yes No Depth (inches): Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Saturation Present? Yes No Depth (inches):	ediment Deposits (B2) (Riverine)
Water Marks (B1) (Nonriverine)	rift Deposits (B3) (Riverine)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) TI Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) C Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Si Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Si Water-Stained Leaves (B9) Freshold Observations: Surface Water Present? Yes No Depth (inches): Beth (inches):	rainage Patterns (B10)
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) C Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Si Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Si Water-Stained Leaves (B9) F/ ield Observations: Surface Water Present? Yes No Depth (inches): Staturation Present? Yes No S	ry-Season Water Table (C2)
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Si	hin Muck Surface (C7)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) SI	rayfish Burrows (C8)
	aturation Visible on Aerial Imagery (C9
Sield Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Signification Present? Yes No Depth (inches): Wetland Hydrology includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	hallow Aquitard (D3)
Gurface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Sincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	AC-Neutral Test (D5)
Vater Table Present? Yes NoDepth (inches):	THE PARTY OF THE P
Vater Table Present? Yes NoDepth (inches): Baturation Present? Yes NoDepth (inches): Wetland Hydrology ncludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Saturation Present? Yes No Depth (inches): Wetland Hydrology includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
ncludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	y Present? Yes No
Remarks:	
remarks.	

Project/Site: Vartnaw Landir Applicant/Owner: Geoff McCom	29	City/County: Period	Alcong CA Sampling Date: 242
nvestigator(s): Liscal Macrosilla		Carlles Taxable D	State: Sampling Point:
nvestigator(s): Locel Macmillar			
Subregion /I PP): LOC	1.46	Local relief (concave,	, convex, none): Slope (%):
Coil Man Unit Name:	Lat:		Long: Datum:
			NWI classification:
are climatic / hydrologic conditions on the site typical for t			
			"Normal Circumstances" present? Yes No
are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS - Attach site ma	p showing	sampling point	locations, transects, important features, etc
	No No No	Is the Sample within a Wetla	
/EGETATION			
Tree Stratum (Use scientific names.) 1		Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2		-	Total Number of Dominant
3			Species Across All Strata: (B)
4Total Cov Sapling/Shrub Stratum	/er:		Percent of Dominant Species That Are OBL, FACW, or FAC: 160 (A/B)
1			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3.			OBL species x 1 =
4			FACW species x 2 =
5Total Cov		-	FAC species x 3 = FACU species x 4 =
Herb Stratum	/er:	10 - 4	UPL species x 5 =
1. Cypens eragnostis	2_	Y PAGE	Column Totals: (A) (B)
2			
3.			Prevalence Index = B/A =
4,			Hydrophytic Vegetation Indicators:
5			Dominance Test is >50% Prevalence Index is ≤3.0¹
6			Morphological Adaptations¹ (Provide supporting)
7 8			data in Remarks or on a separate sheet)
Total Cov	/er:		Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Rubus armentarus</u> 2.	80	Y FAC	¹ Indicators of hydric soil and wetland hydrology must be present.
Total Cov	ver:ver of Biotic Cr	-1	Hydrophytic Vegetation Present? Yes No No
Remarks:		1	

Histosol (A1) Sandy Redox (S5) 1 cm I Histic Epipedon (A2) Stripped Matrix (S6) 2 cm I Black Histic (A3) Loamy Mucky Mineral (F1) Reduc Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red P Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other 1 cm Muck (A9) (LRR D) Depleted Bark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Popleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Wernal Pools (F9) Indicators Sandy Gleyed Matrix (S4) Wetland Restrictive Layer (if present): Type: Depth (inches): Hydric Soi Remarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Indicators (A12) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Indicators (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) The Depth (Inches) (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Water Present? Yes No Depth (inches): Water Table Present? Yes Depth	rs for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) uced Vertic (F18) Parent Material (TF2) or (Explain in Remarks)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Root Chan Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	nnel, M=Matrix. rs for Problematic Hydric Soils³: Muck (A9) (LRR C) Muck (A10) (LRR B) Liced Vertic (F18) Parent Material (TF2) or (Explain in Remarks)
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) 1 cm l Histic Epipedon (A2) Stripped Matrix (S6) 2 cm l Histic Epipedon (A2) Loamy Mucky Mineral (F1) Reduc Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Reduc Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red P Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Estrictive Layer (if present): Type: Depth (inches): Bethick Table (A2) Biotic Crust (B11) Surface Water (A1) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Inundation Visible on Aerial Imagery (B7) Water Table (A2exes (B9) Field Observations: Urface Water Present? Yes No Depth (inches): Urface Water Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Urface Water Present? Yes No Depth (inches): Depth (inc	rs for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) uced Vertic (F18) Parent Material (TF2) or (Explain in Remarks)
Artic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	rs for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) uced Vertic (F18) Parent Material (TF2) or (Explain in Remarks)
Artic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	rs for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) uced Vertic (F18) Parent Material (TF2) or (Explain in Remarks)
Artic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	rs for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) uced Vertic (F18) Parent Material (TF2) or (Explain in Remarks)
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) 1 cm l Histic Epipedon (A2) Stripped Matrix (S6) 2 cm l Histic Epipedon (A2) Loamy Mucky Mineral (F1) Reduc Hydrogen Sulfide (AA) Loamy Mucky Mineral (F1) Reduc Hydrogen Sulfide (AA) Loamy Mucky Mineral (F2) Red P Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Bleyed Matrix (S4) Estrictive Layer (if present): Type: Depth (inches): Beth Water (A1) Salt Crust (B11) Surface (F2) Surface Water (A1) Salt Crust (B11) Surface (B12) Surface Water (A1) Salt Crust (B12) Matrix (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Introduce (B12) Surface Soil Cracks (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Introduced Scapillary Fresent? Yes No Depth (inches): Wetland Hydrology Indicators: Depth (inches): Depth (inches): Under Soile Present? Yes No Depth (inches):	rs for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) uced Vertic (F18) Parent Material (TF2) or (Explain in Remarks)
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Indicators: (Applicable to all LRRs, unless otherwise noted.)	rs for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) uced Vertic (F18) Parent Material (TF2) or (Explain in Remarks)
Indicators: (Applicable to all LRRs, unless otherwise noted.)	rs for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) uced Vertic (F18) Parent Material (TF2) or (Explain in Remarks)
Indicators: (Applicable to all LRRs, unless otherwise noted.)	rs for Problematic Hydric Soils ³ : Muck (A9) (LRR C) Muck (A10) (LRR B) uced Vertic (F18) Parent Material (TF2) or (Explain in Remarks)
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Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) Reduct Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Pepleted Matrix (F3) Loamy Gleyed Matrix (F3) Other 1 cm Muck (A9) (LRR D) Pepleted Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Vernal Pools (F9) Pepleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Vernal Pools (F9) Pepleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Vernal Pools (F9) Pepleted Dark Surface (F7) Thick Dark Surface (F7) Thick Dark Surface (F7) Thick Dark Surface (F7) Pedian People (F9) Pepleted Dark Surface (F7) Redox Depressions (F8) Vernal Pools (F9) Pludicators Wetland Pepleted Dark Surface (F7) Pepleted Dark Surface (F7) Pepleted Dark Surface (F7) Pepleted Dark Surface (F8) Pepleted Dark Surface (F6) Pepleted Dark Surface (F7) Pepleted Dark Surface (F8) Pepleted Dark Surface	Muck (A10) (LRR B) uced Vertic (F18) Parent Material (TF2) er (Explain in Remarks)
Black Histic (A3) Loamy Mucky Mineral (F1) Reduction Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red P Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Indicators Sandy Gleyed Matrix (S4) Wetland Fresent): Type: Depth (inches): Hydric Soil temarks: Depth (inches): Surface Water (A1) Surface Water Table (A2) Biotic Crust (B12) Frimary Indicators (any one indicator is sufficient) Surface Water (A1) Aquatic Invertebrates (B13) Frimary Indicators (B12) Surface Water (B12) Surface Surface Surface (B13) Surface Surface Surface (B13) Surface Surfac	uced Vertic (F18) Parent Material (TF2) r (Explain in Remarks)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red P Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Wetland Restrictive Layer (if present): Type: Depth (inches): Betrictive Layer (if present): Type: Depth (inches): Surface Water (A1) Sait Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches):	Parent Material (TF2) er (Explain in Remarks)
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Thick Dark Surface (A12)	or of business business and the control of the cont
Sandy Mucky Mineral (S1) Vernal Pools (F9)	n af kudan kuli u sasat il
Sandy Gleyed Matrix (S4) wetland Restrictive Layer (if present): Type: Depth (inches): Hydric Soi Remarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) In the primary Indicators (B2) In the primary Indicators (B2) In the primary Indicators (B2) Saturation (A3) Aquatic Invertebrates (B13) In the primary Indicators (B2) In the primary Indicators (B2) Saturation (A3) Aquatic Invertebrates (B13) In the primary Indicators (B2)	a of bridges bridges t - t!
Restrictive Layer (if present): Type:	rs of hydrophytic vegetation and
Type:	nd hydrology must be present.
Popeth (inches):	
Portion of the present? Portion of the present of the p	VILLEY TO STATE OF THE PARTY OF
Vetland Hydrology Indicators: Second Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water Table Present? Ves No Depth (inches): Saturation (C4) Depth (inches): Saturation (C4) Sediment Deposits (B9) Depth (inches): Saturation (C4) Surface Water Present? Ves No Depth (inches): Saturation Present? Ves Saturation Present?	oil Present? Yes No 些
Vetland Hydrology Indicators: Second Second	
Surface Water (A1) Salt Crust (B11) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Sediment Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Water Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Wetland Hydrolog includes capillary fringe) Salt Crust (B11) Salt Crust (B12) Salt Crust	ondary Indicators (2 or more required)
Surface Water (A1) Salt Crust (B11) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Saturation (A3) Aquatic Invertebrates (B13) Saturation (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) To prift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Recent Iron Reduction in Remarks) Surface Usater Stained Leaves (B9) Depth (inches): Surface Water Present? Yes No Depth (inches): Suturation Present? Yes No Depth (inches):	
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Saturation (A3)	Sediment Deposits (B2) (Riverine)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Ediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) To Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Calculated Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Other (Explain in Remarks) Solid Observations:	Drift Deposits (B3) (Riverine)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) To prift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Calcalate (C4) Calcalate (C5) Calcalate (C6)	Drainage Patterns (B10)
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) C Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) S Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) S Water-Stained Leaves (B9) F Field Observations: Surface Water Present? Yes No Depth (inches): S Auter Table Present? Yes No Depth (inches): S Saturation Present? Yes No Depth (inches): S Wetland Hydrolog includes capillary fringe)	Dry-Season Water Table (C2)
	Thin Muck Surface (C7)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) S Water-Stained Leaves (B9) F Field Observations: Surface Water Present? Yes No Depth (inches): Poster Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrologincludes capillary fringe)	Crayfish Burrows (C8)
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrolog includes capillary fringe)	Saturation Visible on Aerial Imagery (C
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Sincludes capillary fringe) Wetland Hydrological Presents	Shallow Aquitard (D3)
Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrolog includes capillary fringe)	FAC-Neutral Test (D5)
Vater Table Present? Yes NoDepth (inches): Saturation Present? Yes NoDepth (inches): Wetland Hydrolog includes capillary fringe)	
Saturation Present? Yes No Depth (inches): Wetland Hydrolog includes capillary fringe)	
includes capillary fringe)	
	ogy Present? Yes No
Remarks:	

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Project/Site: Vartnaw Landin	19	City/County: P	along CA Sampling Date: 21412
Applicant/Owner: Groff McCom	it		State: OA Sampling Point: 5
Investigator(s): Lucy Macmillar	1	Section Township P	Pance:
Landform (hillslope, terrace, etc.):		Local ratios (conserve	e, convex, none): Slope (%): 1-2
Subregion (LRR): LRIC	Late	Local feller (concave	Slope (%): Slope (%): Slope (%):
Soil Map Unit Name: YOLO CLONI No.	Lat	0-50/00	Long: Datum: NWI classification:
Are climatic / bydrologic conditions on the site typical for the	intimate	0 5 65	NWI classification:
Are climatic / hydrologic conditions on the site typical for the	is time of ye	ar? Yes No	(If no, explain in Remarks.)
Are Vegetation Soil and Market	significantly	disturbed? No Are	e "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally pro	oblematic? No (If r	needed, explain any answers in Remarks.)
		sampling point	locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes		Is the Sample	ad Area
Hydric Soil Present? Yes N Wetland Hydrology Present? Yes			and? Yes No
Domorko			
Rainfail however	has	been to	35 50 far
VEGETATION		-	
/EGETATION	Absolute		
Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Indicator Species? Status	
1. Overus spr	_5	Y UPL	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2			
3			Total Number of Dominant Species Across All Strata: (B)
4			
Sapling/Shrub Stratum Total Cove	r:		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1			Prevalence Index worksheet:
2.			
3			OBL species x 1 =
4			FACW species x 2 =
5			FAC species x 3 =
Herb Stratum Total Cover			FACU species x 4 =
1. Rumex acetosella	5	V 1101	UPL species x 5 =
2.		1 01-0	Column Totals: (A) (B)
3			Prevalence Index = B/A =
4			Hydrophytic Vegetation Indicators:
5			Dominance Test is >50%
6			Prevalence Index is ≤3.0¹
7			Morphological Adaptations¹ (Provide supporting
8			data in Remarks or on a separate sheet)
Woody Vine Street in	,		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum 1. Rubys a (Meniacus)	an	Y FAC	In an
2.	10	1700	¹ Indicators of hydric soil and wetland hydrology must be present.
Total Cover	an		
		~	Hydrophytic Vegetation
	of Biotic Cr	ust	Present? Yes No
Remarks:			

Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Primary Indicators (any one indicator is sufficient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³: 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present. Hydric Soil Present? Yes No
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. **Location: PL=Pore Lining, RC=* Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³: 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present.
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ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present.
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches): emarks: //DROLOGY //detland Hydrology Indicators: rimary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present.
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Algoric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Permarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present.
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Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Permarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present.
Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Permarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present.
Black Histic (A3)	Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present.
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Red Parent Material (TF2) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present.
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present.
1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present.
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Depth (inches): Depth (inches): Primary Indicators (any one indicator is sufficient) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	wetland hydrology must be present.
Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Depth (inches): Depth (inches): Remarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	wetland hydrology must be present.
Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present):	wetland hydrology must be present.
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1)	wetland hydrology must be present.
Restrictive Layer (if present): Type: Depth (inches): Remarks: Primarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	
Type:	Hydric Soil Present? Yes No
Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Depth (inches): YDROLOGY Wetland Hydrology Indicators: Primary Indicators: Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Hydric Soil Present? Yes No
Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Primary Indicators (any one indicator is sufficient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Hydric Soil Present? Yes No
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	
Vetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	
Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required)
Surface Water (A1)	
High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Water Marks (B1) (Riverine)
Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Sediment Deposits (B2) (Riverine)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Drift Deposits (B3) (Riverine)
프랑이나의 제작되었다. 아무리 내내 1일 때문에 가장 되었다. 그 경기를 받는 것이 되었다. 그 그 사람들은 그리고 있는데 그 없는데 그렇게 되었다. 그리고 하는데 그리고 있다.	Drainage Patterns (B10)
Sodiment Deposits (P2) (Nansiyasina)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots	(C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
= - M-W 2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2	PAC-Neutral Test (D5)
ield Observations:	
Surface Water Present? Yes No Depth (inches):	
Vater Table Present? Yes No Depth (inches):	
	d Hydrology Present? Yes No 🔽
includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a	available:
Remarks:	2007/201

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

			Maria de la companya della companya	State:	Sampling Point:
vestigator(s): Local Macmillar					
andform (hillslope, terrace, etc.):		Local relie	f (concave,	convex, none):	Slope (%): 1
ubregion (LRR):	Lat:			Long:	Datum:
oil Map Unit Name: Yolo Clay lo					
re climatic / hydrologic conditions on the site typical for th	is time of yea	ar? Yes _	No_	(If no, explain in R	emarks)
re Vegetation, Soil, or Hydrology	significantly	disturbed?	No Are	'Normal Circumstances" p	present? Yes No _
re Vegetation, Soil, or Hydrology	naturally pro	blematic?	No (If no	eded, explain any answe	rs in Remarks.)
UMMARY OF FINDINGS - Attach site map	showing	samplin	a point l	ocations transects	important features
			S point.	- Control of trained on	, important leatures,
Hydrophytic Vegetation Present? NA Yes N Hydric Soil Present? Yes N	No	/ Is ti	ne Sampleo		
Wetland Hydrology Present?	No V	with	nin a Wetla	nd? Yes	No
		-	1	55 50 for	
Rainfall however	A SEE S	DEC.	n te	35 70 thr	
FOFTATION					
EGETATION	At				
Tree Stratum (Use scientific names.)	Absolute % Cover		Indicator Status	Dominance Test work	
				Number of Dominant Si That Are OBL, FACW, of	
9.					-
3				Total Number of Domin Species Across All Stra	
4					,
Total Cove	er:			Percent of Dominant Sp That Are OBL, FACW, of	or FAC: (A
Sapling/Shrub Stratum					
2.				Prevalence Index work	ksneet: Multiply by:
3.					x 1 =
1.					x2=
5.					x3=
Total Cove				FACU species	
lerb Stratum	Page 403		- · · · · · · ·		x 5 =
grasses			NA		(A)
2.					
					= B/A =
				Hydrophytic Vegetation Dominance Test is	
5.				Prevalence Index is	
). 					otations ¹ (Provide supporting
3				data in Remarks	or on a separate sheet)
	er:			Problematic Hydron	ohytic Vegetation ¹ (Explain)
Woody Vine Stratum					
					and wetland hydrology mus
				be present.	
Total Cove	r:			Hydrophytic Wagetation	7
% Bare Ground in Herb Stratum % Cove	er of Biotic Cr	ust		Vegetation Present? Yes	S No
	THE RESERVE		-	TOTAL TO	
Remarks:					

C	0	ı	
J	v	ı	ᆫ

Sampling Point:

Depth _	Matrix	Redo	x Features		
(inches)	Color (moist) %	Color (moist)	%Type ¹	Loc ² Text	ure Remarks
0-6				51	fy clay looks
		-			_
					_
Type: C=Con	centration, D=Depletion, R	M=Reduced Matrix.	*Location: PL=Por	e Lining, RC=Root	Channel, M=Matrix.
	dicators: (Applicable to a	all LRRs, unless other	wise noted.)	Indic	cators for Problematic Hydric Soils ³ :
_ Histosol (A		Sandy Redo			1 cm Muck (A9) (LRR C)
_ Histic Epip		Stripped Ma	itrix (S6)	_ :	2 cm Muck (A10) (LRR B)
_ Black Histi		Loamy Muc	ky Mineral (F1)		Reduced Vertic (F18)
	Sulfide (A4)	Loamy Gley	red Matrix (F2)		Red Parent Material (TF2)
	ayers (A5) (LRR C)	Depleted Ma	atrix (F3)		Other (Explain in Remarks)
	(A9) (LRR D)	Redox Dark	Surface (F6)		* Value 1 (a. c.) - Cara a description (a. c.)
	Below Dark Surface (A11)	Depleted Da	ark Surface (F7)		
	Surface (A12)	Redox Depr	essions (F8)		
_ Sandy Mud	cky Mineral (S1)	Vernal Pool	s (F9)	³ India	cators of hydrophytic vegetation and
_ Sandy Gle	yed Matrix (S4)				etland hydrology must be present.
Restrictive La	yer (if present):				
Туре:					
Depth (inche	es):				Carlos and and the
- open (mon				Hydrid	c Soil Present? Yes No
Remarks:		thes or	SIO'IXO	-	C Soil Present? Yes No No
Remarks:	no mo	thes or	OXI'dR	-	
Remarks:	no mo	thes or	SIGIXO	ed vn	izospheres
emarks: /DROLOG	No Mo		SIGIXO	ed vn	
Primary Indicate	Y plogy Indicators: ors (any one indicator is su	ufficient)		ed vn	izospheres
Permarks: POROLOG Vetland Hydro Trimary Indicate	Y plogy Indicators: ors (any one indicator is su			ed vn	Secondary Indicators (2 or more required)
POROLOG Vetland Hydro Trimary Indicat	Y plogy Indicators: ors (any one indicator is su	ufficient)	(B11)	ed vn	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
POROLOG Vetland Hydro Trimary Indicat	Y plogy Indicators: ors (any one indicator is suater (A1) r Table (A2)	ufficient) Salt Crust Biotic Crus	(B11)	ed vn	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
POROLOG Vetland Hydro rimary Indicat Surface Wi High Water Saturation	Y plogy Indicators: ors (any one indicator is suater (A1) r Table (A2)	ufficient) Salt Crust Biotic Crus Aquatic Inv	(B11) t (B12)	ed vn	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
POROLOG Vetland Hydro rimary Indicat Surface Wi High Water Saturation Water Marl	Y plogy Indicators: ors (any one indicator is su ater (A1) r Table (A2) (A3)	ufficient) Salt Crust Biotic Crus Aquatic Inv	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1)	ed vn	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOG Vetland Hydro Vimary Indicat Surface Wi High Water Saturation Water Mari Sediment I	Y plogy Indicators: ors (any one indicator is su ater (A1) r Table (A2) (A3) ks (B1) (Nonriverine) Deposits (B2) (Nonriverine)	ufficient) Salt Crust Biotic Crus Aquatic Inv Hydrogen 3	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) thizospheres along	Living Roots (C3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)
YDROLOG Vetland Hydro Surface Wi High Water Saturation Water Marl Sediment D Drift Depos	Y Dlogy Indicators: ors (any one indicator is su ater (A1) r Table (A2) (A3) ks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine)	ufficient) Salt Crust Biotic Crus Aquatic Inv Hydrogen 3 Oxidized R Presence co	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to the condition of Reduced Iron (C4)	Living Roots (C3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
YDROLOG Vetland Hydro Frimary Indicat Surface Wi High Water Saturation Water Marl Sediment D Drift Depos Surface So	Y plogy Indicators: ors (any one indicator is suater (A1) r Table (A2) (A3) ks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) iil Cracks (B6)	ufficient) Salt Crust Biotic Crus Aquatic Inv Hydrogen Set Oxidized Re Presence of Recent Iron	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to the condition of Reduced Iron (C4) n Reduction in Plow	Living Roots (C3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
POROLOG Vetland Hydro rimary Indicat Surface Wi High Water Saturation Water Mark Sediment I Drift Depos Surface So Inundation	Y plogy Indicators: ors (any one indicator is sulater (A1) r Table (A2) (A3) ks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) iil Cracks (B6) Visible on Aerial Imagery (ufficient) Salt Crust Biotic Crus Aquatic Inv Hydrogen Set Oxidized Re Presence of Recent Iron	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to the condition of Reduced Iron (C4)	Living Roots (C3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
YDROLOG Vetland Hydro Primary Indicat Surface With High Water Saturation Water Mari Sediment I Drift Deposition Surface So Inundation Water-Stain	Y plogy Indicators: ors (any one indicator is subset (A1) r Table (A2) (A3) ks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) iil Cracks (B6) Visible on Aerial Imagery (ned Leaves (B9)	ufficient) Salt Crust Biotic Crus Aquatic Inv Hydrogen Set Oxidized Re Presence of Recent Iron	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to the condition of Reduced Iron (C4) n Reduction in Plow	Living Roots (C3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
YDROLOG Vetland Hydro Vetland Hydro Surface Wi High Water Saturation Water Mark Sediment I Drift Depose Surface So Inundation Water-Stair	Y plogy Indicators: ors (any one indicator is suater (A1) r Table (A2) (A3) ks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) iil Cracks (B6) Visible on Aerial Imagery (med Leaves (B9) tions:	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iron (B7) Other (Exp	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to the condition of Reduced Iron (C4) Reduction in Plow that is remarks.	Living Roots (C3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
YDROLOG Vetland Hydro Primary Indicat Surface Water High Water Saturation Water Mark Sediment I Drift Depose Surface So Inundation Water-Stain iteld Observation	Y plogy Indicators: ors (any one indicator is subset (A1) r Table (A2) (A3) ks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) sits (B3) (Nonriverine) will Cracks (B6) Visible on Aerial Imagery (ned Leaves (B9) stions: Present? Yes	ufficient) Salt Crust Biotic Crust Aquatic Inv Hydrogen 3 Oxidized R Presence 0 Recent Iron Other (Exp	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) thizospheres along to the condition of Reduced Iron (C4) Reduction in Plow lain in Remarks)	Living Roots (C3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
YDROLOG Vetland Hydro Primary Indicat Surface Water High Water Saturation Water Mark Sediment I Drift Depos Surface So Inundation Water-Stain Field Observator Surface Water	Y plogy Indicators: ors (any one indicator is subset (A1) r Table (A2) (A3) ks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) sit (B3) (Nonriverine) will Cracks (B6) Visible on Aerial Imagery (Index Leaves (B9) tions: Present? Yes	ufficient) Salt Crust Biotic Crus Aquatic Inv Hydrogen Salt Oxidized Ralt Presence of Calt Recent Iron Other (Exp	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) thizospheres along to the condition of Reduced Iron (C4) Reduction in Plow lain in Remarks)	Living Roots (C3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
YDROLOG Vetland Hydro Primary Indicat Surface With High Water Saturation Water Mari Sediment I Drift Depose Surface So Inundation Water-Stain Water Table Present Indicated Present I	Y plogy Indicators: ors (any one indicator is substater (A1) r Table (A2) (A3) As (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) sit (B3) (Nonriverine) sit (B4) Visible on Aerial Imagery (Inded Leaves (B9) stions: Present? Yes Leaves (Pes Leave	ufficient) Salt Crust Biotic Crust Aquatic Inv Hydrogen 3 Oxidized R Presence 0 Recent Iron Other (Exp	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to Reduced Iron (C4) in Reduction in Plow lain in Remarks) ches):	Living Roots (C3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
YDROLOG Vetland Hydro Primary Indicat Surface With High Water Saturation Water Mark Sediment I Drift Depose Surface So Inundation Water-Stain Water-Stain Water Table Prosencludes capilla	Y plogy Indicators: ors (any one indicator is substater (A1) r Table (A2) (A3) ks (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) sits (B3) (Nonriverine) sit Cracks (B6) Visible on Aerial Imagery (Indicator is substated in the property of the pro	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron (B7) Depth (inc	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along of Reduced Iron (C4 n Reduction in Plow lain in Remarks) ches):	Living Roots (C3) ed Soils (C6) Wetland Hyd	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLOG Wetland Hydro Primary Indicat Surface With High Water Saturation Water Mark Sediment I Drift Depose Surface So Inundation Water-Stail Field Observat Surface Water I Water Table Presence Includes capillate	Y plogy Indicators: ors (any one indicator is substater (A1) r Table (A2) (A3) As (B1) (Nonriverine) Deposits (B2) (Nonriverine) sits (B3) (Nonriverine) sit (B3) (Nonriverine) sit (B4) Visible on Aerial Imagery (Inded Leaves (B9) stions: Present? Yes Leaves (Pes Leave	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron (B7) Depth (inc	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along of Reduced Iron (C4 n Reduction in Plow lain in Remarks) ches):	Living Roots (C3) ed Soils (C6) Wetland Hyd	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLOG Vetland Hydro Primary Indicat Surface With High Water Saturation Water Mark Sediment I Drift Depose Surface So Inundation Water-Stain Water-Stain Water Table Prosencludes capilla	y plogy Indicators: ors (any one indicator is substater (A1) r Table (A2) (A3) r Table (A2) (A3) r	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron (B7) Depth (inc	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to Reduced Iron (C4 n Reduction in Plow lain in Remarks) ches): ches):	Living Roots (C3)) ed Soils (C6) Wetland Hyde	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLOG Vetland Hydro Vetland Hydro Vetland Hydro Surface With Saturation Water Mari Sediment I Drift Depose Surface So Inundation Water-Stain Veter Table Prosecuted Search Search Search Search Veter Table Prosecuted Search Veter Tab	y plogy Indicators: ors (any one indicator is substater (A1) r Table (A2) (A3) r Table (A2) (A3) r	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron (B7) Depth (inc	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to Reduced Iron (C4 n Reduction in Plow lain in Remarks) ches): ches):	Living Roots (C3)) ed Soils (C6) Wetland Hyde	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
POROLOG Vetland Hydro Vetland Hydro Irimary Indicat Surface Wit Saturation Water Mari Sediment I Drift Depos Surface So Inundation Water-Stain Veter Vater I Vater Table Proposed I Veter Table Proposed I Vete	y plogy Indicators: ors (any one indicator is substater (A1) r Table (A2) (A3) r Table (A2) (A3) r	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron (B7) Depth (inc	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to Reduced Iron (C4 n Reduction in Plow lain in Remarks) ches): ches):	Living Roots (C3) ed Soils (C6) Wetland Hyd	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLOG Vetland Hydro Vetland Hydro Vetland Hydro Surface With Saturation Water Mari Sediment I Drift Depos Surface So Inundation Water-Stain ield Observat urface Water I Vater Table Proposed Surface Surface Water I vater Table Proposed Surface	y plogy Indicators: ors (any one indicator is substater (A1) r Table (A2) (A3) r Table (A2) (A3) r	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron (B7) Depth (inc	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to Reduced Iron (C4 n Reduction in Plow lain in Remarks) ches): ches):	Living Roots (C3)) ed Soils (C6) Wetland Hyde	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
/DROLOG /etland Hydro rimary Indicat _ Surface With _ High Water _ Saturation _ Water Mark _ Sediment If _ Drift Depose _ Inundation _ Water-Stain ield Observate urface Water If //ater Table Presencludes capillate escribe Recore	y plogy Indicators: ors (any one indicator is substater (A1) r Table (A2) (A3) r Table (A2) (A3) r	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron (B7) Depth (inc	(B11) t (B12) vertebrates (B13) Sulfide Odor (C1) chizospheres along to Reduced Iron (C4 n Reduction in Plow lain in Remarks) ches): ches):	Living Roots (C3)) ed Soils (C6) Wetland Hyde	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)

Project/Site: Vartnaw Landin	19	City/County	Pate	SACROS CA Sampling Date: 7/1	17
Applicant/Owner: Groff McCom:	-5			State: OA Sampling Point: 7	16
Investigator(s): Local Macmillan		Section, To	wnship Ra	ange:	
Landform (hillslope, terrace, etc.):		Local relies	f (concave	Convey none): October (0/)	1-71
Subregion (LRR): LRC	Lat:	Local Icho	(concave,	Slope (%):	
Soil Map Unit Name: Yolo Clay los	_ Lat	6-6	0/201	Long: Datum:	
Are climatic / hydrologic conditions on the site tunical for the		0 3	/ 5	NVVI classification:	
Are climatic / hydrologic conditions on the site typical for thi					
Are Vegetation, Soil, or Hydrologys	significantly	disturbed?	No Are	"Normal Circumstances" present? Yes No	
Are Vegetation, Soil, or Hydrology ı				the state of the s	
SUMMARY OF FINDINGS - Attach site map	showing	samplin	g point l	locations, transects, important features	. etc.
Hydrophytic Vegetation Present? Yes					, 510.
Hydric Soil Present? Yes N		Is th	e Sampled	d Area	
Wetland Hydrology Present? YesN		with	in a Wetla	and? Yes No	
Domonto					
Rainfail however	Nas	DE-C	J les	55 50 far	
VEGETATION					
Troo Stratum // les scientific names	Absolute			Dominance Test worksheet:	
Tree Stratum (Use scientific names.)		Species?		Number of Dominant Species	
1				That Are OBL, FACW, or FAC:	(A)
2				Total Number of Dominant	
3				Species Across All Strata:	(B)
4Total Cover	-			Percent of Dominant Species	
Sapling/Shrub Stratum				That Are OBL, FACW, or FAC:	(A/B)
1				Prevalence Index worksheet:	
2				Total % Cover of: Multiply by:	
3				OBL species x 1 =	
4				FACW species x 2 =	
5				FAC species x 3 =	. 1
Herb Stratum Total Cover	r:			FACU species x 4 =	
1				UPL species x 5 =	
2.				Column Totals: (A)	(B)
3				Prevalence Index = B/A =	
4				Hydrophytic Vegetation Indicators:	
5				Dominance Test is >50%	
6				Prevalence Index is ≤3.0 ¹	
7				Morphological Adaptations ¹ (Provide supporting	ıg
8				data in Remarks or on a separate sheet)	
Total Cover	:			Problematic Hydrophytic Vegetation ¹ (Explain)	1
1. RUDUS armeniacus	Nen	V	ONC	Italiana at the state of the st	
2.	N80		PAC	¹ Indicators of hydric soil and wetland hydrology mube present.	st
Total Cover	5				_
				Hydrophytic Vegetation	
	of Biotic Cr	ust		Present? Yes No	
Remarks:					
					1

C/ 1111	

Sampling Point:

Depth Matrix (inches) Color (moist) % (10 1/12 1/2 1/00)	Redox Features Color (moist) % Type ¹ L	oc² Texture Remarks
Type: C=Concentration, D=Depletion, RM=		ning, RC=Root Channel, M=Matrix.
Hydric Soil Indicators: (Applicable to all I	LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Depressions (F8)	31
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Vernal Pools (F9)	³ Indicators of hydrophytic vegetation and
Restrictive Layer (if present):		wetland hydrology must be present.
Type:		
Depth (inches):	_	
Remarks:		Hydric Soil Present? Yes No
YDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suffice	cient)	Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Livir	
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed S	
Inundation Visible on Aerial Imagery (B7		Shallow Aguitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes	NoDepth (inches):	
	No Depth (inches):	
Saturation Present? Yes Nincludes capillary fringe)	No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, mo	mitoring well, aerial priotos, previous inspect	lions), ii avaliable:
Remarks:		

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Project/Site: Vartnaw Lan	enis	City/County: P	demon CA .	compling Date: 2 1 2
Applicant/Owner: Geoff McCo	mit	ony. obuinty.	State: OAA C	ampling Date:
Investigator(s): Local Macmill	an	Section Township D	State. On S	ampling Point:
Landform (hillslope, terrace, etc.):		Local relief (sensors	alige.	1-5
Subregion (LRR):	1.46	Local feller (concave,	, convex, none):	Slope (%):
Soil Man Unit Name: Yolo Class	Lat.		_ Long:	Datum:
Soil Map Unit Name: Yolo Clay	TOUR	0-5-165	NWI classificati	on:
Are climatic / hydrologic conditions on the site typica	al for this time of ye	ar? Yes No_	(If no, explain in Rem	narks)
Are Vegetation, Soil, or Hydrology _	significantly	disturbed? No Are	"Normal Circumstances" pre-	sent? Yes No
Are Vegetation, Soil, or Hydrology _	naturally pro	oblematic? No (If n	eeded, explain any answers i	in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showing	sampling point	locations, transects, in	mportant features, etc
A CONTRACTOR OF THE PROPERTY O			V. II. VIII. (1)	
" [201] - [1] [1] [1] [1] [1] [1] [1]	No	Is the Sample	d Area	
	No	within a Wetla	nd? Yes	No
	V laces	-	55 50 far	
Rainfail howeve		been le	55 50 Ar	
IP A prop A sun A A I				
/EGETATION	100	,		
Tree Stratum (Use scientific names.)	Absolute		Dominance Test workshe	eet:
1	% Cover	Species? Status	Number of Dominant Spec	
2.			That Are OBL, FACW, or F	AC: (A)
3.			Total Number of Dominant	
4			Species Across All Strata:	(B)
Tota	l Cover:		Percent of Dominant Speci	
Saping/Shrub Stratum			That Are OBL, FACW, or F	AC: (A/B)
1			Prevalence Index worksh	eet:
2			Total % Cover of:	
3			OBL species	
4			FACW species	
5			FAC species	
Herb Stratum	l Cover:		FACU species	
1			UPL species	
2			Column Totals:	(A) (B)
3			Prevalence Index = E	3/A =
4,			Hydrophytic Vegetation II	
5			Dominance Test is >50	0%
6			Prevalence Index is ≤3	.0 ¹
7.			Morphological Adaptati	ions ¹ (Provide supporting
В				on a separate sheet)
Woody Vine Stratum	Cover:		Problematic Hydrophyt	ic vegetation (Explain)
1. RUDUS armenicats	90	Y TAC	¹ Indicators of hydric soil and	d wetland hydrology much
2.			be present.	wettand nydrology must
	Cover:		Hydrophytic	1341
A 1 16	Cover of Biotic Cru	int of	Vegetation	
Remarks:	Cover of Biotic Crt	JST	Present? Yes	No
No. 193.				

0	-		
		п	

Depth Matrix (inches) Color (moist) %	Redox Features Color (moist) % Type¹ L	OC ² Texture Remarks
5-16 104K3/2 100	79 Type L	Class Cast
/pe: C=Concentration, D=Depletion, RM=I dric Soil Indicators: (Applicable to all L Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	Reduced Matrix. ² Location: PL=Pore Link RRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1)	ning, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³: 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18)
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	Red Parent Material (TF2) Other (Explain in Remarks)
	Redox Depressions (F8) Vernal Pools (F9)	3 Indicates of building
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Vernal Pools (F9)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present.
_ Sandy Gleyed Matrix (S4) estrictive Layer (if present):		wetland hydrology must be present.
_ Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type:		wetland hydrology must be present.
Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches):		Hydric Soil Present? Yes No
Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches): emarks:		wetland hydrology must be present. Hydric Soil Present? Yes No
Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches): emarks: DROLOGY etland Hydrology Indicators:		Wetland hydrology must be present. Hydric Soil Present? Yes No
Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches): emarks: TDROLOGY etland Hydrology Indicators: imary Indicators (any one indicator is sufficie Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)		Wetland hydrology must be present. Hydric Soil Present? Yes No
Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches): emarks: **TOROLOGY** **Toron	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches): emarks: //DROLOGY //etland Hydrology Indicators: //imary Indicators (any one indicator is sufficient of the	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
Sandy Gleyed Matrix (S4) estrictive Layer (if present): Type: Depth (inches): emarks: **TOROLOGY** **Toron	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed S Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)

Subregion (LRR): Let: Long: Doarum: Slope (%) Soll Map Unit Name: Yold Clay Lat: Let: Long: Doarum: Doarum: Ver climatic / hydrologic conditions on the site typical for this time of year? Yes No (ff no. explain.in Remarks) Are Vegetation Soil or Hydrology espainificantly disturbed? No Are "Normal Circumstances" present? Yes No (ff no. explain.in Remarks) Are Vegetation Soil or Hydrology naturally problematic? No (if needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important feature Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No No Within a Wetland? Yes No	and the state of t	CAMILIAN		Section, T	ownship F	State: Sampling Date: 2 4 Sampling Point: 9
Datum: Lat: Long: Delum: Long: Delum: Long: Delum: Long: NVII classification: Lat: Long: NVII	(misiope, terrace, etc.).			I anal vali-		
re climatic / hydrologic conditions on the site typical for this time of year? Yes No (if no, explain in Remarks) re Vegetation Soil or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes No (if no, explain in Remarks) re Vegetation Soil or Hydrology naturally problematic? No (if needed, explain any answers in Remarks.) **UMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important feature Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No No Wetland Hydrology Present? Yes No No Wetland Hydrology Present? Yes No No Wetland Hydrology Present? Yes No No Yes No Yes No N			1 21.			The same of the sa
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re Vegetation Soil or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes No Instruction or Hydrology and an answers in Remarks.) **UMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important feature Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No Wetland Hydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area Wetland? Yes No Is the Sampled Area within a Wetlan	3	the site typical for th	is time of ve	ear? Yes	No	(If no cymlein in The The
UMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important feature bydrophytic Vegetation Present?	, Soil, o	r Hydrology	significantly	disturbed?	No Are	"Normal Circumstance II
Commandary Of FinDings - Attach site map showing sampling point locations, transects, important feature withdropytic Vegetation Present?	re Vegetation, Soil, o	r Hydrology	naturally pro	oblematic?	No 115 .	No No
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Wetland Hydrology Present? Yes No Within a Wetland? Remarks: Ramfail Nowever Nos Deen Nos Societ Nowever Nos No No Nowever Nos No No No No Nowever Nos Nos No	Hydrophytic Vegetation Present?	Yes N	lo	1111		
FGETATION Absolute Dominant Indicator Species Status Species Spec		Yes N	lo			
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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: OBL species	ree Stratum (Use scientific names)			Indicator	Dominance Test worksheet:
Total Number of Dominant Species Across All Stratas: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: DBL species	- oka europe	à	10	Species?		Number of Dominant Species
Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: 50					UPU	That Are OBL, FACW, or FAC: (A)
Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species						Consider A
That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of:						(5)
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FACW species x2 = FAC species w4 = UPL species w4 = SPACW species w4 = UPL spec	Sapling/Shruh Stratum	Total Cover:	10			
Total % Cover of: Multiply by: OBL species						(,,,,
OBL species x1 = FACW species x2 = FAC species 100 x3 = 300 erb Stratum Total Cover: FACU species 100 x5 = 50 Column Totals: // (A) 350 Prevalence Index = B/A = 3.2 Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain Rubbs) when the present. Total Cover: 10 d Hydrophytic Vegetation Indicators of hydric soil and wetland hydrology must be present.						
FACW species						
Total Cover: FAC species 100 x3 = 300 FACU species x4 = UPL species 10 x5 = Column Totals: (A) 350 Prevalence Index = B/A = 3.2 Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.01 Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation1 (Explain of the present.) Problematic Hydrophytic vegetation of the present. Total Cover: 100 Total Cover: 100 Hydrophytic Hydroph				-		OBL species x 1 =
Total Cover: FACU species						FAC species X2 =
UPL species		Total Cover:				
Column Totals: // (A) 350 Prevalence Index = B/A = 3.2 Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain or on the present. Total Cover: Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Local Cover: Indicators of hydric soil and wetland hydrology must be present.						UPL species (0 x 5 = 50
Prevalence Index = B/A = 3.2 Hydrophytic Vegetation Indicators:						
Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain on a separate sheet) Problematic Hydrophytic Vegetation¹ (Hydrophytic soil and wetland hydrology must be present. Total Cover: 10 d Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain on a separate sheet)						
Dominance Test is >50% — Prevalence Index is ≤3.0¹ — Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation¹ (Explain land) Problematic Hydrophytic Soil and wetland hydrology make the present. Total Cover: 10 d Hydrophytic Hydroph						
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Total Cover: To						
Total Cover: Problematic Hydrophytic Vegetation (Explain Indicators of hydric soil and wetland hydrology must be present. Total Cover: O d Hydrophytic Hydro						data in Remarks or on a separate sheet)
Total Cover: 10 d	oody Vine Stratum	Total Cover:				Problematic Hydrophytic Vegetation ¹ (Explain)
Total Cover: 10 d Total Cover: 10 d Hydrophytic Vorcettian	RUBUS armeniace	25	Ipm	V	TALE	1
Total Cover: 10 d Hydrophytic				7	THU	Indicators of hydric soil and wetland hydrology must be present.
Vonctotion		Total Cover	100			120 F/A-100 F
Date Glouild III Help Stratilm	Bare Ground in Herb Stratum					Vegetation
Bare Ground in Herb Stratum % Cover of Biotic Crust Present? Yes No		% Cover o	T Blotic Crus	st		
	777					

[인프랑티일] (1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	oth needed to document the indicator or confirm	Sampling Point:
Depth Matrix	Peday Factures	the absence of indicators.)
(inches) Color (moist) %	Redox Features Color (moist)	¥
0-16 104R3/2 100	-AKOLO	Texture Remarks
1015/10	2001 16 16 ·	SITTY Clay Load
	1.5 VIC/G 27 M	1
		
¹ Type: C=Concentration, D=Depletion, RM=	-Poducod Metric 2	
Hydric Soil Indicators: (Applicable to all	=Reduced Matrix. ² Location: PL=Pore Lining, RC: LRRs, unless otherwise noted.)	Root Channel, M=Matrix.
Histosol (A1)	Sandy Redox (S5)	Indicators for Problematic Hydric Soils ³ :
Histic Epipedon (A2)	Stripped Matrix (S6)	1 cm Muck (A9) (LRR C)
Black Histic (A3)	Loamy Mucky Mineral (F1)	2 cm Muck (A10) (LRR B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Reduced Vertic (F18)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	Red Parent Material (TF2)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12)	Redox Depressions (F8)	
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	3Indicators of hadron to
Sandy Gleyed Matrix (S4)		³ Indicators of hydrophytic vegetation and
Restrictive Layer (if present):		wetland hydrology must be present.
Type:		
Depth (inches):		dudic Call Day 10
Remarks: Minimal mother	8 <5% at 1611	Hydric Soil Present? Yes No
	3 2 10 AT 11-11	
100111 -1001 100 110		
100000000000000000000000000000000000000	- 3 - 2 6 -	
	3 3 4 6 1 16	
/DROLOGY		
/DROLOGY /etland Hydrology Indicators:		Secondary Indicators (2 or more required)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is suffic		Secondary Indicators (2 or more required) Water Marks (R1) (Rivering)
'DROLOGY letland Hydrology Indicators: rimary Indicators (any one indicator is suffic _ Surface Water (A1)		Water Marks (B1) (Riverine)
'DROLOGY Vetland Hydrology Indicators: rimary Indicators (any one indicator is suffic _ Surface Water (A1) _ High Water Table (A2)	ient) Salt Crust (B11)	Water Marks (B1) (Riverine)Sediment Deposits (B2) (Riverine)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is suffic _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3)	ient) Salt Crust (B11) Biotic Crust (B12)	 Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is suffic _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) (Nonriverine)	ient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	 Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is suffic Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	ient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is suffice Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	ient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (61)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficent of the sufficency of t	ient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C2) Presence of Reduced Iron (C4)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is suffice Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	ient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C1) Presence of Reduced Iron (C4) Recent Iron Reduction in Played Soils (C6)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)

Saturation Present? Yes _____ No ____ Depth (inches): _____ Wetland Hydrold (includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Hydrology Present? Yes

Appendix C – CNDDB Printout

									cnddb												
SNAME	CNAME	ELMCODE	OCCNUMBER	MAPNDX	EONDX	KEYQUAD	KQUADNAME	KEYCOUNTY	PLSS	ELEVATION	PARTS	ELMTYPE	TAXONGROUP	EOCOUN	ACCURACY	PRESENCE	OCCTYPE	OCCRANK	SENSITIVE	SITEDATE	ELMDATE
Lifium pardalinum ssp. pitkinense	Pitkin Marsh By	PMLIL1A0H3	4	20323	93011	3812226	Petaluma	SON		0	1	1	Monocots	1:	2 1 mile	Extirpated	Natural/Native occurrence	None	Y	188006300	188006XX
Ambystoma californiense	California tiger salamander	AAAAA01180	1135	94460	91221	3812226	Petaluma	SON	T05N, R07W, Sec. 33 (M)	0	1	2	Amphibians		5 miles	Possibly Extirpated	Natural/Native occurrence	None	N	1856XXXX	18560000X
Riparia riparia	bank swallow	ABPAU08010	296	84455	85482	3812234	Sonoma	SON	T05N, R05W, Sec. 19 (M)	25	1	2	Birds		1 5 miles	Presumed Extant	Natural/Native occurrence	Unknown	N	18930523	18930523
Emys marmorata	western pond turtle	ARAAD02030	599	54262	54282	3812225	Petaluma River	SON		130	1	2	Reptiles		1 80 meters	Presumed Extant	Natural/Native occurrence	Good	Υ	20040115	20040115
Reithrodontomys raviventris	salt-marsh harvest mouse	AMAFF02040	18	8474	14582	3812225	Petaluma River	SON	T04N, R06W, Sec. 20 (M)	3	1	2	Mammals		3 non-specific area	Presumed Extant	Natural/Native occurrence	Unknown	N	2005XXXX	2005XXXX
Coastal Brackish Marsh	Coastal Brackish Marsh	CTT52200CA	1	8474	16109	3812225	Petaluma River	SON	T04N, R06W, Sec. 20 (M)		1	3	Marsh		3 non-specific area	Presumed Extent	Natural/Native occurrence	Unknown	N	197706XX	197706XX
Tryonia imitator	mimic trvonia («California brackishwater snail)	IMG4S.17040	13	8474	57939	3812225	Petaluma River	SON	T04N, R06W, Sec. 20 (M)	6	1		Mollusks		3 non-specific area	Presumed Extent	Natural/Native occurrence	Linknown	N	1984XXXX	19840000X
Railius obsoletus obsoletus	California Ridoway's rail	ARNME05011	105	61749	61785		Petakima River		TOAN, RORW Sec. 18 (M)	3			Rints		non-specific area		Natural/Native occurrence		N	20140324	
Geothlyois trichas sinuosa	saltmarsh common vallowthroat	ABPBX1201A	59	33859	14664		Petaluma River		T04N, R06W, Sec. 18 (M)			_	Birds		non-specific area		Natural/Native occurrence			20040521	20040521
Melospiza melodia samuelis	San Pablo song sparrow	ABPBXA301W	25	61026	61062		Petaluma River		T05N, R07W, Sec. 34 (M)		1		Birds Birds		1 1 mile	Presumed Extant	Natural/Native occurrence		N	19401006	19401006
Metospiza metodia samuelis Rombus occidentalis	san Patro song sparrow western humble hee	IIHYM24250	171	98473	99903		Petaluma River		T05N, H07W, Sec. 34 (M)	85	1		Inserts		1 1 mile	Presumed Extent	Natural/Native occurrence		N	19401006	19401006
									10.11(1.01.11(0.00.0.1)(1.)			_							N		
Taxidea taxus	American badger	AMAJF04010	233	57122	57138		Petaluma River		T04N, R07W, Sec. 14 (M)	200		_	Mammals		1 1 mile	Presumed Extant	Natural/Native occurrence		N	19490720	19490720
Centromadia parryi ssp. parryi	pappose tarplant	PDAST4R0P2	13	56476	56492	3812236		SON	T05N, R07W, Sec. 09 (M)	80			Dicots		1 1 mile	Presumed Extant	Natural/Native occurrence		N	1987XXXX	1987XXXX
Rana boylii	foothill yellow-legged frog	AAABH01050		A8964	110772	3812236	Cotati	SON	T05N, R07W, Sec. 7 (M)	57	1	2	Amphibians		1 1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	19870903	19870903
Bombus occidentalis	western bumble bee	IIHYM24250	169	20323	99897	3812226	Petaluma	SON	T05N, R07W, Sec. 33 (M)	30	1	2	Insects	1:	2 1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	19651021	19651021
Astragalus tener var. tener	alkali milk-vetch	PDFAB0F8R1	39	20323	9269	3812226	Petaluma	SON	T05N, R07W, Sec. 33 (M)	30	1 1	- 1	Dicots	1:	2 1 mile	Extirpated	Natural/Native occurrence	None	N	19000000X	188004XX
Taricha rivularis	red-bellied newt	AAAAF02020	136	20323	104578	3812226	Petaluma	SON	T05N, R07W, Sec. 33 (M)	20	1	2	Amphibians	1:	2 1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	XXXXXXXXXX	XXXXXXXXXXX
Sidalcea calycosa ssp. rhizomata	Point Reyes checkerbloom	PDMAL11012	10	20323	9268	3812226	Petaluma	SON	T05N, R07W, Sec. 33 (M)	30	1	1	Dicots	1:	2 1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	18800506	18800506
Fritilaria Iliacea	fragrant fritillary	PMLIL0V0C0	83	20323	94662	3812226	Petaluma	SON	T05N, R07W, Sec. 33 (M)		1	1	Monocots	1:	2 1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	18800403	18800403
Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	445	20323	93632	3812226		SON	TOSN ROTW Sec 33 (M)	30	1		Mammals		2 1 mile	Presumed Extent	Natural/Native occurrence		N	19381009	19381009
Plagiobothrys mollis var. vestitus	Petaluma popcornflower	PDBOR0V0Q2	1	20323	9265	3812226		SON	T05N, R07W, Sec. 33 (M)	20		_	Dicots		2 1 mile		Natural/Native occurrence		N N	188007XX	188007XX
Chorizanthe valida	Sonoma spineflower	PDPGN040V0	5	20323	9266	3812226		SON	T05N, R07W, Sec. 33 (M)	30			Dicots		2 1 mile	Possibly Extreated			N N	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Hemizonia concesta ssp. concesta		PDPGN040V0	38	20323	109811	3812226		SON	T05N, H07W, Sec. 33 (M)	20		_	Dinots		z 1 mile	Presumed Extent	Natural/Native occurrence		N N	1930XXXX	19900000
	congested-headed hayfield tarplant								100141101010100100101			_			1.000						
Allium peninsulare var. franciscanum	Franciscan onion	PMLIL021R1	10	20323	45129	3812226		SON	T05N, R07W, Sec. 33 (M)	0	_		Monocots		2 1 mile	Presumed Extant	Natural/Native occurrence		N	18800602	18800602
Trifolium polyodon	Pacific Grove clover	PDFAB402H0	24	20323			Petaluma	SON	T05N, R07W, Sec. 33 (M)	20	_		Dicots		2 1 mile	Presumed Extant	Natural/Native occurrence		N	XXXXXXXXXX	
Polygonum marinense	Marin knotweed	PDPGN0L1C0	3	8464	20964		Petaluma River		T04N, R06W, Sec. 30 (M)	5	1		Dicots		1 1 mile	Presumed Extant	Natural/Native occurrence		N	19450708	10.00.00
Laterallus jamaicensis coturniculus	California black rail	ABNME03041	213	76085	77080		Petaluma River		T04N, R06W, Sec. 19 (M)	7	1		Birds		non-specific area		Natural/Native occurrence		N	20110409	
Buteo swainsoni	Swainson's hawk	ABNKC19070	2571	94447	91549	3812226	Petaluma	SON	T04N, R07W, Sec. 22 (M)	120	1	2	Birds		non-specific area	Possibly Extirpated	Natural/Native occurrence	None	N	1856XXXX	18560000X
Bombus occidentalis	western bumble bee	IIHYM24250	296	B6149	119187	3812224	Sears Point	SON	T04N, R06W, Sec. 14 (M)	145	- 1	2	Insects		non-specific area	Presumed Extant	Natural/Native occurrence	Unknown	N	19530831	19530831
Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	PDSCR0J0C3	61	42155	42155	3812225	Petaluma River	SON	T04N, R06W, Sec. 20 (M)	4	1	1	Dicots		1 3/5 mile	Presumed Extant	Natural/Native occurrence	Excellent	N	19930917	19930917
Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	1	41863	41863	3812235	Glen Ellen	SON	T05N, R07W, Sec. 24 (M)	400	1	2	Fish		non-specific area	Presumed Extant	Natural/Native occurrence	Excellent	N	20160408	20160408
Rallus obsoletus obsoletus	California Ridoway's rail	ABNME05011	89	59159	59195	3812225	Petaluma River	SON	T04N, R06W, Sec. 29, SE (M)	10	3	1 2	Birds		non-specific area	Presumed Extent	Natural/Native occurrence	Good	N	20110505	20110505
Melospiza melodia samuelis	San Pablo sono sparrow	ABPBXA301W	24	60748	60784	9919996	Petaluma River	SON!	T04N, R06W, Sec. 19 (M)		1		Birds		1 2/5 mile	Presumed Extant	Natural/Native occurrence	Linknown	N	1981XXXX	1981XXXX
Rana boylii	foothill yellow-legged frog	AAABH01050	159	36971	31968		Glen Ellen	SON	T05N, R07W, Sec. 13 (M)	325			Amphibians		non-specific area		Natural/Native occurrence			1998XXXX	19980000X
Laterallus iamaicensis coturniculus	California Nack rail	ARNME03041	216	76090	77085		Petakima River		TOAN ROTW, Sec. 1.5 (M)	323			Rints		non-specific area		Natural/Native occurrence		N N	20150318	20150318
									10.11(1.011)		_	_							IN	20103010	
Geothlypis trichas sinuosa	saltmarsh common yellowthroat	ABPBX1201A	58	16022	24806		Petaluma River		T05N, R07W, Sec. 34, SE (M)	9	1		Birds		2 non-specific area		Natural/Native occurrence		N	1985XXXX	1985XXXX
Reithrodontomys raviventris	salt-marsh harvest mouse	AMAFF02040	44	16022	23866		Petaluma River		T05N, R07W, Sec. 34 (M)	8	1 1		Mammals		non-specific area		Natural/Native occurrence		N	19901222	19901222
Laterallus jamaicensis coturniculus	California black rail	ABNME03041	215	76089	77084		Petaluma River		T04N, R07W, Sec. 12, NE (M)	7	1	_	Birds		non-specific area		Natural/Native occurrence		N	20080527	20080527
Rallus obsoletus obsoletus	California Ridgway's rail	ABNME05011	115	97463	98760		Petaluma River		T05N, R07W, Sec. 35, SW (M)	5			Birds		non-specific area		Natural/Native occurrence		N	20140324	20140324
Trifolium amoenum	two-fork clover	PDFAB40040	19	8330	19163	3812226		SON	T04N, R07W, Sec. 09, W (M)	300			Dicots		non-specific area		Natural/Native occurrence		N	19690526	19690526
Delphinium luteum	golden larkspur	PDRAN0B0Z0	2	8330	21638	3812226	Petaluma	SON	T04N, R07W, Sec. 09, W (M)	150	1 1	1	Dicots		2 non-specific area	Presumed Extant	Natural/Native occurrence	Unknown	N	19620419	19620419
Chloropyron molle ssp. molle	soft salty bird's-beak	PDSCR0J0D2	10	8469	17822	3812225	Petaluma River	SON	T04N, R06W, Sec. 19, SE (M)	0	1 1	- 1	Dicots		1 1/5 mile	Possibly Extirpated	Natural/Native occurrence	None	N	19930917	19781108
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	PDAST4R065	13	72953	73865	3812236	Cotati	SON	T05N, R07W, Sec. 18 (M)	0	1	1	Dicots		non-specific area	Presumed Extant	Natural/Native occurrence	Unknown	N	19160723	19160723
Emys marmorata	western pond turtle	ARAAD02030	420	30180	4936	3812226	Petaluma	SON	T04N, R07W, Sec. 18, S (M)	120	1	2	Reptiles		specific area	Presumed Extant	Natural/Native occurrence	Fair	N	20020325	20020325
Emys marmorata	western pond turtle	ARAAD02030	1349	A4178	105855	3812226	Petaluma	SON	T04N, R07W, Sec. 8, SE (M)	273	1	2	Reptiles		specific area	Presumed Extant	Natural/Native occurrence	Excellent	N	20160725	20160725
Emys marmorata	western pond turtle	ARAAD02030	764	70718	71627	3812225	Petaluma River	SON	T04N, R07W, Sec. 01 (M)	15	1	2	Reptiles		1 specific area	Presumed Extent	Natural/Native occurrence	Good	N	20070726	20070726
Pogonichthys macrolepidotus	Sacramento solittali	AFC.IR34020	8	42851	42851	3812226		SON	T05N R07W Sec 28 (M)	- 1	1		Fish		specific area	Presumed Extent	Natural/Native occurrence		N	19990823	19990823
Bana dravtonii	California red-legged frog	AAABH01022	353	42674	42674	3812226	Betslums	SON	T04N, R07W, Sec. 06, NW (M)	200		-	Amphibians		non-specific area	Descripted Extent	Natural/Native occurrence	Good	M	20010918	20010918
	western pond turtle	ARAAD02030	183	46159	46159		Petaluma	SON	T05N, R07W, Sec. 30, SW (M)	45		_	Reptiles		non-specific area		Natural/Native occurrence		N	20010510	20010510
Emys marmorata Tavidea tavus	American badger	AMAJE04010	183	46159 53938	46159 53938	3812226		SON	T05N, H07W, Sec. 30, SW (M)	200			Mammals		non-specinc area specific area	Presumed Extent	Natural/Native occurrence		N	20010524	
					105078		Petaluma River			200	2										20120403
Laterallus jamaicensis coturniculus	California black rail	ABNME03041		A3442					T04N, R07W, Sec. 2, NE (M)	7	1		Birds		1 1/10 mile	Presumed Extant	Natural/Native occurrence		N	20120403	
Laterallus jamaicensis coturniculus	California black rail	ABNME03041		A3439	105076			SON	T04N, R07W, Sec. 2, NW (M)	4	1		Birds		1 1/10 mile	Presumed Extant	Natural/Native occurrence		N	20150318	20150318
Rana draytonii	California red-legged frog	AAABH01022	1101	A4177	105854			SON	T04N, R07W, Sec. 8, SE (M)	248	-		Amphibians		specific area	Presumed Extant	Natural/Native occurrence		N	20160805	20160805
Rana boylii	foothill yellow-legged frog	AAABH01050		A8966	110777		Petaluma River		T05N, R07W, Sec. 35, SE (M)	21			Amphibians		1 specific area	Presumed Extant	Natural/Native occurrence		N	20190424	
Emys marmorata	western pond turtle	ARAAD02030	779	71249	72155		Petaluma River		T05N, R07W, Sec. 35 (M)	12			Reptiles		non-specific area		Natural/Native occurrence		N	20080118	
Emys marmorata	western pond turtle	ARAAD02030	561	49246	49246	3812226	Petaluma	MRN	T04N, R07W, Sec. 19, NW (M)	210	1	2	Reptiles		specific area	Presumed Extant	Natural/Native occurrence	Good	N	20020325	20020325
Streptanthus anomalus	Mount Burdell jewelflower	PDBRA2G520		B4790	117703	3812226		MRN	T04N, R07W, Sec. 28, SE (M)	535	- 1		Dicots		1 80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	20190628	
Rana draytonii	California red-legged frog	AAABH01022	1563	A9426	111274	3812238	Cotati	SON	T05N, R08W, Sec. 24, SW (M)	51	1	2	Amphibians		1 80 meters	Presumed Extant	Natural/Native occurrence	Fair	N	20170516	20170516
Taxidea taxus	American badger	AMAJF04010	533	A3302	104932	3812236	Cotati	SON	T05N, R07W, Sec. 28, NW (M)	24	1	2	Mammals		1 80 meters	Presumed Extant	Natural/Native occurrence	Poor	N	20160814	20160814
Rana draytonii	California red-legged frog	AAABH01022	959	69220	70000	3812225	Petaluma River	SON	T04N, R07W, Sec. 01 (M)	10	1	2	Amphibians		1 80 meters	Presumed Extant	Natural/Native occurrence	Good	N	19940429	19940429
Emys marmorata	western pond turtle	ARAAD02030	563	49437	49437	3812226		MRN	T04N, R08W, Sec. 13 (M)	150	1		Reptiles		1 80 meters	Presumed Extant	Natural/Native occurrence		N	20020325	20020325
Rana dravtonii	California red-legged frog	AAARHO1022	559	48729	48729	3812226		MRN	T04N, R07W, Sec. 18, SE (M)	180			Amphibians		1 80 meters	Presumed Extant	Natural/Native occurrence		N	20020617	20020817
Antrozous pallidus	pallid bat	AMACC10010	50	43657	43657	3812226		SON	T04N, R07W, Sec. 04, NE (M)	80	_		Mammala		1 80 meters	Presumed Extant	Natural/Native occurrence		N	19971011	19971011
Antrozous patidus Emys marmorata	western pond turtle	ARAAD02030	533	48138	48138		Petaluma River	SON	T05N, R06W, Sec. 33, NW (M)	200			Reptiles		1 80 meters 1 80 meters	Presumed Extant	Natural/Native occurrence		N N	20001027	20001027
Rana draytonii		AAABH01020	533 441	46138 45553	45553	3812225		SON	T05N, H06W, Sec. 33, NW (M)	200			: Heptiles : Amphibians		1 80 meters	Presumed Extant	Natural/Native occurrence	_		20001027	20001027
	California red-legged frog	POPULATION COLL								45									IN		
Eriogonum luteolum var. caninum	Tiburon buckwheat	PDPGN083S1	26	93241	94378	3812226		MRN	T04N, R07W, Sec. 28, SE (M)				Dicots		2 80 meters	Presumed Extant	Natural/Native occurrence		N	20110603	20110603
Hesperolinon congestum	Marin western flax	PDLIN01060	34	93241	110974	3812226		MRN	T04N, R07W, Sec. 28, SE (M)	550			Dicots		2 80 meters	Presumed Extant	Natural/Native occurrence		N	20110603	
Amorpha californica var. napensis	Napa false indigo	PDFAB08012	57	96367	98056	3812226		MRN	T04N, R07W, Sec. 21, NW (M)	600	_		Dicots		2 80 meters	Presumed Extant	Natural/Native occurrence		N	20110518	
Pleuropogon hooverianus	North Coast semaphore grass	PMPOA4Y070	34	96367	97530	3812226		MRN	T04N, R07W, Sec. 21, NW (M)	460	_	_	Monocots		2 80 meters	Presumed Extant	Natural/Native occurrence		N	20120409	20120409
Taxidea taxus	American badger	AMAJF04010	405	70325	71214	3812236		SON	T05N, R07W, Sec. 18 (M)	48	1	2	Mammals		1 80 meters	Presumed Extant	Natural/Native occurrence	Fair	N	20061022	20061022
Rana draytonii	California red-legged frog	AAABH01022	840	61801	61837	3812226	Petaluma	SON	T04N, R07W, Sec. 04, NW (M)	85	- 1	2	Amphibians		1 80 meters	Presumed Extant	Natural/Native occurrence	Fair	N	20050429	20050429
Emys marmorata	western pond turtle	ARAAD02030	662	69484	70264	3812236	Cotati	SON	T05N, R07W, Sec. 18 (M)	29	1	2	Reptiles		1 80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20070525	20070525
Rana draytonii	California red-legged frog	AAABH01022	968	69801	70624	3812226	Petaluma	SON	T04N, R07W, Sec. 05, NE (M)	171	1	2	Amphibians		1 80 meters	Presumed Extant	Natural/Native occurrence	Fair	N	20070819	20070819
Rana boylii	foothil yellow-legged frog	AAABH01050	476	73308	74273		Petaluma River		T05N, R07W, Sec. 35, NE (M)	30			Amphibians		1 80 meters	Presumed Extant	Natural/Native occurrence		N	20080703	
Emvs marmorata	western nord turtle	ARAAD02030	819	57929	57945	3812226		SON	TOAN BOTW Sec. 05, RE (M)	400	_		Rentiles		1 80 meters	Presumed Extent	Natural/Native occurrence		N	19980607	19980607
Rana dravtonii	California red-legged frog	AAABH01022	756	56889	56905		Petaluma	SON	T04N, R07W, Sec. 05, NW (M)	200		_	Amphibians		1 80 meters	Presumed Extant	Natural/Native occurrence		N N	20070607	20070607
Rana draytonii	California red-legged frog	AAARH01022	653	51771	51771	3812226		SON	TOAN, ROTW, Sec. 05, NW (M)	200			Amphibians		1 80 meters	Presumed Extent	Natural/Native occurrence		N	20070607	20070807
Athene cunicularia	Carrornia red-legged frog	ABNSB10010	769	64140		3812226		SON	T04N, H07W, Sec. 05, SE (M)	200	_		Amphibians Birds		1 80 meters	Presumed Extant	Natural/Native occurrence		N N	20030602	
		ABNSB10010 ARAAD02030	769	64140 45420	64235 45420		Petaluma Petaluma River		T04N, R08W, Sec. 02 (M) T05N, R06W, Sec. 31 (M)	260			Birds Reptiles			Presumed Extant Presumed Extant	Natural/Native occurrence Natural/Native occurrence		IN	20051124	
Emys marmorata	western pond turtle	ARAAD02030	527	45420	45420	3812225	retaluma River	SUN	IUSN, R06W, Sec. 31 (M)	160	1 1	2	reptiles		specific area	Presumed Extant	Natural/Native occurrence	Good	N	20010506	20010506

OWNERMGT	FEDLIST				RPLANTRANK	CDFWSTATUS		LOCATION
	Endangered	Endangered	G5T1	S1	1B.1		SB_BerrySB; SB_CalBG/RSABG; SB_USDA	
UNKNOWN	Threatened	Threatened	G2G3	8283		WL.		PETALUMA.
UNKNOWN	None	Threatened	G5	S2			BLM_S; IUCN_LC	SONOMA CREEK NEAR THE TOWN OF SONOMA.
	None	None	G3G4	83		SSC	BLM_S; IUCN_VU; USFS_S	
DFG-PETALUMA MARSH WA, PVT	Endangered	Endangered	G1G2	S1S2		FP	IUCN_EN	PETALUMA MARSH, ON WEST BANK OF PETALUMA RIVER FROM 2 MILES SOUTH OF PETALUMA TO BLACK POINT, NW OF SAN PABLO BAY.
DFG-PETALUMA MARSH WA, PVT	None	None	G2	S2.1				VICINITY OF NEILS ISLAND ON THE PETALLIMA RIVER.
DFG-PETALUMA MARSH WA, PVT	None	None	G2	S2			IUCN_DD	PETALLIMA RIVER MARSH, ABOUT 5.0 MI SOUTHEAST OF PETALLIMA.
DFG-PETALUMA MARSH WA, UNK	Endangered	Endangered	G5T1	S1		FP	NABCI_RWL	AREA OF PETALLIMA MARSH NORTH OF MUD HEN SLOUGH.
DFG-PETALUMA MARSH WA, PVT	None	None	G5T3	S3		SSC	USFWS_BCC	PETALUMA MARSH, BORDERED ON THE EAST BY THE PETALUMA RIVER, SE OF PETALUMA.
UNKNOWN	None	None	G5T2	S2		SSC	USFWS_BCC	VICINITY OF PETALLIMA.
UNKNOWN	None	Candidate Endangered	G2G3	S1			USFS_S	4 MILES SOUTHEAST OF PETALUMA.
UNKNOWN	None	None	G5	83		SSC	IUCN_LC	7 MILES NORTH OF NOVATO.
UNKNOWN	None	None	G3T2	82	1B.2		BLM_S	WILLOW BROOK, NORTH OF PETALUMA.
UNKNOWN	None	Endangered	G3	83		SSC	BLM_S; IUCN_NT; USFS_S	VINCINITY OF LICHAU CREEK, PENNGROVE.
LINKNOWN	None	Candidate Endangered		81				PETALUMA
LINKNOWN	None	None	G2T1	81	1B 2			PFTALLIMA
UNKNOWN	None	None	G4	82		SSC	IUCN LC	PETALUMA.
LINKNOWN	None	None		82	1B 2	000		PETALINA
UNKNOWN	None	None	G2	82	1B.2			PETALUMA.
UNKNOWN	None	None	G3G4	82	10.2	SSC		PETALUMA.
UNKNOWN	None	None		SX SX		88C		VICINITY OF PETALUMA.
UNKNOWN	None Endangered	None Endangered	G47TX	SX S1	1A 1B.1		SB CalBG/RSABG	VICINITY OF PETALUMA. PETALUMA.
			-					
UNKNOWN	None	None	G5T2	S2	1B.2			PETALUMA.
UNKNOWN	None	None	G5T2	S2	1B.2			PETALUMA.
UNKNOWN	None	Rare	G1	S1	1B.1			PETALUMA, SONOMA COUNTY.
UNKNOWN	None	None	G2Q	S2	3.1			BURDELL.
DFG-PETALUMA MARSH WA	None	Threatened		S1		FP		ALONG W BANK OF THE PETALUMA RIVER, IMEDIATELY N & NW OF HOG ISLAND, S OF LAKEVILLE, PETALUMA MARSH WILDLIFE AREA.
UNKNOWN	None	Threatened	G5	83			BLM_S; IUCN_LC; USFWS_BCC	SAN ANTONIO CREEK SOUTH OF PETALUMA.
UNKNOWN	None	Candidate Endangered		S1				TOLAY CREEK.
DFG-PETALUMA MARSH WA	None	None		S2	1B.2			PETALUMA MARSH, BETWEEN WOLOKI AND MUD HEN SLOUGHS, ABOUT 5 MILES SOUTHEAST OF PETALUMA.
UNKNOWN	Threatened	None	G5T2T3Q					ADOBE CREEK, ON THE EAST SIDE OF PETALUMA.
SONOMA LAND TRUST, UNKNOWN	Endangered	Endangered	G5T1	S1		FP		EAST SIDE OF PETALUMA RIVER FROM HWY 37 BRIDGE (CARLS MARSH) UPSTREAM ABOUT 6.5 MILES TO LAKEVILLE, NE OF NAVATO.
DFG-PETALUMA MARSH WA	None	None	G5T2	82		SSC	USFWS_BCC	PORTION OF PETALUMA MARSH LOCATED BETWEEN MUD SLOUGH AND DONAHUE SLOUGH.
UNKNOWN	None	Endangered	G3	53		SSC	BLM_S; IUCN_NT; USFS_S	ADOBE CREEK, RUNNING BETWEEN SONOMA MOUNTAIN AND NW EDGE OF PETALUMA.
CITY OF PETALUMA	None	Threatened	G3G4T1	S1		FP	BLM_S; IUCN_NT; NABCI_RWL; USFWS_BCC	MARSH SW OF SEWAGE PONDS, ABOUT 1.7 MI ESE OF HAYSTACK & 2.2 MI SE OF MIWOK VALLEY ELEMENTARY SCHOOL, PETALUMA.
CITY OF PETALUMA, PVT	None	None	G5T3	S3		SSC	USFWS_BCC	MCNEAR, ALONG THE PETALUMA RIVER, ESE OF PETALUMA.
CITY OF PETALUMA, PVT	Endangered	Endangered	G1G2	S1S2		FP	IUCN_EN	PETALUMA RIVER MARSH, 0.5 MILE SE OF INTERCHANGE OF HIGHWAYS 101 & 116, PETALUMA.
UNKNOWN	None	Threatened	G3G4T1	S1		FP	BLM_S; IUCN_NT; NABCI_RWL; USPWS_BCC	PETALUMA MARSH EAST OF NORTHWESTERN RAILROAD, NORTH OF SCHULTZ SLOUGH, & SOUTH OF PETALUMA RIVER CUT B.
CITY OF PETALUMA	Endangered	Endangered	G5T1	S1		FP	NABCL RWL	AREA SE OF HWY 101 AT HWY 116, N OF PETALUMA RIVER.
UNKNOWN	Endangered	None	G1	S1	1B.1		SB_CalBG/RSABG; SB_UCBG; SB_USDA	POINT REYES ROAD, 2 MILES SOUTH OF PETALUMA.
UNKNOWN	Endangered	Rare	G1	S1	1B.1		SB UCBG	2 MILES WEST OF PETALUMA ON D STREET EXTENSION TOWARD POINT REYES.
DFG-PETALUMA MARSH WA	Endangered	Rare	G2T1	81	1B.2			PETALUMA MARSH, BETWEEN SAN ANTONIO & MUD HEN SLOUGH, ABOUT 1.3 MI NORTH OF BURDELL ISLAND.
UNKNOWN	None	None	G5T2	82	1B.2		SB UCBG	4 MILES NW OF PETALUMA.
PVT-SPALLETTA DAIRY	None	None	G3G4	83		SSC	BLM S: IUCN VU: USFS S	SAN ANTONIO CREEK, WEST OF POINT REYES-PETALUMA ROAD, 2.5 MILES SSW OF PETALUMA.
PVT	None	None	G3G4	83		SSC	BLM S: IUCN VU: USFS S	ABOUT 1.0 MI NE OF SAN ANTONIO RD AT DIST EXTENSION & 1.2 MI SE OF CHILENO VALLEY RD AT ARMSTRONG (RD). SW OF PETALUMA.
CITY OF PETALLIMA STATE	None	None	6364	83		880		FLUS CREEK FROM LAKEVILLE HIGHWAY TO THE INTERTIDAL BOLINDARY ABOUT 3000 FT DOWNSTREAM FAST OF PETALLIMA
UNKNOWN	None	None	GNR	83		SSC		PETALUMA RIVER, BETWEEN NORTHWESTERN PACIFIC RAILROAD AND LYNCH CREEK CONFLUENCE, PETALUMA.
LINKNOWN	Threatened	None	G2G3	8283		880		MARIN CREEK, AT WESTERN AVENUE, SW OF PETALUMA.
UNKNOWN	None	None	G2G3	83		SSC		NW OF PETALUMA: 350 FT NORTH AND 0.25 MILE SOUTH OF MAGNOLIA AVE ALONG STREAM.
PVT	None	None	G5	83		SSC	BLM_S; IUCN_VU; USFS_S IUCN LC	NW OF PETALUMA; 950 FT NORTH AND 0.25 MILE SOUTH OF MAGNOLIA AVE ALONG STREAM. WEST OF PAULA LANE AND SOUTH OF SUNSET DRIVE. WEST OF PETALUMA.
CITY OF PETALLIMA	None	Threatened		81		SSC FP		WEST OF PRODUCTIONS AND SOUTH OF SUNSET DRIVE, WEST OF PETALLOWA. AROUT O'S MESW OF CYPRESS OR AT PINE VIEW WAY O'T MESSE OF HAVY 116 AT MICROWELL RD. MICHAEL ESE OF PETALLIMA.
CITY OF PETALUMA	None	Threatened		S1		FP		VICINITY OF PETALUMA RIVER & ADOBE CREEK CONFLUENCE, ABOUT 0.9 MI SE OF HWY 101 & HWY 116 INTERSECTION, E OF PETALUMA.
PVT	Threatened	None	G2G3	8283		SSC	IUCN_VU	ABOUT 1.0 MI NE OF SAN ANTONIO RD AT D ST EXTENSION & 1.2 MI SE OF CHILENO VALLEY RD AT ARMSTRONG (RD), SW OF PETALUMA.
SONOMA CO WATER AGENCY	None	Endangered	G3	83		SSC		ADOBE CREEK NEAR LAKEVIEW HIGHWAY (HIGHWAY 116), PETALUMA.
CITY OF PETALUMA	None	None	G3G4	83		SSC	BLM_S; IUCN_VU; USFS_S	SHOLLENBERGER PARK AT THE SOUTH END OF CADER LANE, PETALUMA.
PVT	None	None	G3G4	83		SSC		0.5 MILE SOUTH OF SAN ANTONIO CREEK AND 0.5 MILE WEST OF POINT REYES-PETALUMA ROAD, 3 MILES SW OF PETALUMA.
PVT	None	None	G1	S1	1B.1			CORDA RANCH; SAN ANTONIO CREEK WATERSHED ON NORTH SIDE OF MT. BURDELL.
UNKNOWN	Threatened	None	G2G3	8283		SSC		WIGGINS CREEK, ABOUT 0.2 MILES NE OF SKILLMAN RD AT LIBERTY RD, NW OF PETALUMA.
CALTRANS	None	None	G5	83		SSC		HWY 101 ABOUT 0.2 MI W OF COMMERCE ST AT TRANSPORT WAY & 0.3 MILES SSE OF N MCDOWIELL BLVD AT PALO VERDE WAY IN PETALUM
UNKNOWN	Threatened	None	G2G3	8283		SSC		ELLIS CREEK, BETWEEN SOUTH ELY ROAD AND PETALUMA MARSH, SE OF PETALUMA.
PVT	None	None	G3G4	S3		SSC	BLM_S; IUCN_VU; USFS_S	0.15 MILE SOUTH OF SAN ANTONIO CREEK AND 1 MILE WEST OF POINT REYES-PETALUMA ROAD, 3 MILES SW OF PETALUMA.
PVT	Threatened	None	G2G3	8283		SSC	IUCN_VU	SAN ANTONIO CREEK, WEST OF POINT REYES-PETALUMA ROAD, 2.5 MILES SSW OF PETALUMA.
PVT	None	None	G5	83		SSC		HOUSE, NW CORNER OF GLENDON WAY AND MOUNTAIN VIEW AVE, PETALUMA.
PVT	None	None	G3G4	83		SSC	BLM_S; IUCN_VU; USFS_S	EAST OF PETALUMA, APPROX 0.16 MILES WEST OF INTERSECT OF ADOBE RD & STAGE GULCH RD. EAST SHORE OF RESERVOIR.
UNKNOWN	Threatened	None	G2G3	S2S3		SSC	IUCN_VU	SOUTH OF MAGNOLIA AVENUE, WEST SIDE OF PETALUMA.
PVT	None	None	G5T2	82	1B.2			APPROXIMATELY 1.5 AIR MILES NW OF THE NW CORNER OF MT. BURDELL OPEN SPACE PRESERVE.
PVT	Threatened	Threatened	G1	S1	1B.1		SB_CalBG/RSABG; SB_UCBG	APPROXIMATELY 1.5 AIR MILES NW OF THE NW CORNER OF MT. BURDELL OPEN SPACE PRESERVE.
PVT	None	None	G4T2	S2	1B.2		SB_CalBG/RSABG	SOUTH OF SAN ANTONIO CREEK; ABOUT 1.5 AIR MILES SE OF THE JUNCTION OF SAN ANTONIO ROAD AND POINT REYES PETALUMA ROAD.
PVT	None	Threatened	G2	82	1B.1		SB_BerrySB; SB_CalBG/RSABG	SOUTH OF SAN ANTONIO CREEK, ABOUT 3.4 AIR MILES NORTHWEST OF SUMMIT OF BURDELL MOUNTAIN.
PVT, CALTRANS	None	None	G5	83		SSC		HWY 101, 0.5 MI NW OF INTERSECTION WITH OLD REDWOOD HWY.
PVT	Threatened	None	G2G3	8283		SSC	IUCN VU	KELLY CREEK, SOUTH OF THE D STREET CROSSING, SOUTH EDGE OF PETALUMA.
SONOMA CO WATER AGENCY	None	None	G3G4	83		SSC	BLM_S; IUCN_VU; USFS_S	WILLOW BROOK, JUST WEST OF HIGHWAY 101, 0.4 MILE NW OF THE OLD REDWOOD HIGHWAY EXIT, BETWEEN PETALUMA AND PENNGROW
PVT	Threatened	None	G2G3	8283		89C		RESIDENTIAL AREA ALONG B STREET, PETALLIMA.
CITY OF PETALUMA, PVT								
	None	Endangered	G3	83		SSC		ADOBE CREEK, EAST SIDE OF PETALUMA.
SON COUNTY	None	None	G3G4	83		SSC		FISH POND AT HELEN PUTNAM REGIONAL PARK, WEST OF PETALUMA.
PVT	Threatened	None	G2G3	8283		SSC		3 POOLS WITHIN A TRIBUTARY TO MARIN CREEK, 0.3 MILE UPSTREAM FROM THE CONFLUENCE, WEST OF PETALUMA.
		None	G2G3	S2S3		SSC	IUCN_VU	0.2 MILE WEST OF POINT REYES-PETALUMA ROAD, JUST SOUTH OF PETALUMA.
	Threatened							
PVT-UNIVERSITY OF THE PACIFIC PVT PVT	Threatened None	None None	G4 G9G4	S3 S3		SSC SSC	BLM_S; IUCN_LC; USPWS_BCC	SOUTH SIDE OF BURNS VALLEY ROAD, 0.6 MILE SW OF THE INTERSECTION WITH SPRING HILL ROAD, 3 MILES SW OF PETALUMA. 1.2 MILES NINE OF THE INTERSECTION OF HIGHWAY 116 AND RECOMMS LANE FAST OF PETALUMA.

SPECIMEN LOCALITY STATED AS "PETALLIMA." REFERENCES CLARIFY COLLECTION BY E. SAMUELS IN 1858 & THAT SAMUELS COLLECTED WIN 26 MIN OF PETALLIMA, THOUGH NEARLY ALL CATALOGED AS "PET LOCATION STATED AS "SONDMA, SONDMA CO." NEST LOCATED SIX FEET UP IN GRAVEL BANK ON "SONDMA RIVER." MAPPED GENERALLY TO SONDMA CREEK BY THE TOWN OF SONDMA.

ALSO A NARROW PORTION OF THE EAST BANK PETALUMA RIVER OPPOSITE THE MOUTH OF BLACK JOHN SLOUGH AND IN THE BAHIA-NOVATO.

1807 AND 1890 LOCATIONS SINTED AS "PETALUMA CREEK."

MAPPED TO PROVIDED MARE BAMPERLES FOR SITES ELCR, FASL, TUSL & WOSL, AND THS.

1805 CREENINGS THROUGHOUT THE MARKEN ZONE CRETETIONS REFOR MARE MOUTH ELOUGH

MAY CLOURDING. "PETALUMA", 1908, 1917, 1918 SPETALUMA NO. 391 SPETALUMA (1917, 1927 M S OF THE ORNESS CENTER OF PETALUMA", 1925 M S PETALUMA" (1940), CAS LOCATION. "PETALUMA

EMOCT LOCATION MANUFACE BY CHOICE & ROAD MILES SOUTHEAST OF PETALUMA ALONG HOMBEY 101, SAST OF DOMANIE BLOUGH.

EACT LOCATION LINKNOWN, MAPPED AS BEST CLIES BY CHOOL IN THE VICINITY OF WILLOW BROOK, APPROXIMATELY 13 MLE BN OF PRINCIPOVE GINEN LOCALITY "CONTRILICISIA CREEK, SICHORA CO!" DOZET LOCATION LINKNOWN, MAPPED THOS SPECIFICALLY TO LOWER PHINT OF CREEK HEARI PERMISHOVE DACET LOCATION LINKNOWN, MAPPED BY CORD IN THE GREEK WASHING OF BLEET OF THE CHIEF

MAPPED NON-SPECIFICALLY TO PETALLIMA, EXACT LOCATION UNKNOWN. MOST LIKELY COLLECTED FROM FOOTHILLS TO THE SOUTH OR NORTH

EXACT LOCATION UNKNOWN, MAPPED AS BEST GUESS IN THE VICINITY OF PETALLIMA

EXACT LOCATION UNKNOWN, MAPPED IN THE GENERAL VICINITY OF PETALLIMA

EACH LUCAING MINORIM, MAPPED IN THE GENERAL MOINT OF PERLUMA.

DACT LOCATION LINNOVIM, MAPPED AS BEST GUISS BY CHOOS IN THE VIOLITY OF PERLUMA, BASED ON A 1950 ORAN COLLECTION.

EACH LOCATION MINORIM, MAPPED IN THE GENERAL WIGHTY OF PERLUMA.

EACH LOCATION LINNOVIM, MAPPED AS BEST GUISS BY CHOOS AROUND PETALIMAR BASED ON SITE NAME GIVEN BY MORROAL.

MAPPED TO GENERAL MAP LOCATIONS AND SHAPETLES FOR 2008-2009 SURVEY SITES # TOTAL SITES W POSITIVE DETECTIONS, SOUTHERN HALF OF SITE REFERRED TO AS THE FETALANA MARISH. DETECT DAYS TLOCATION UNKNOWN, SPICIARISH COLLEGE OF SEAL SHAPET AND HAVE AN ADVISION OF SEAL SHAPET AND SH

MAPPED TO 1997'S SURVEY REACH. ATTRIBUTED SPECIMEN COLLECTED FROM "1.5 MI BHE PETALLIMA", EXACT LOCATION UNKNOWN.

LOCATION DESCRIBED AS TAN R7W SEC 1 SE 1/4, JUST WEST OF SENAGE PORDS, MAPPED TO SE 1/4 OF SEC 1, EXCLUDING THE SENAGE PORDS. SURVEYS CONDUCTED AS PART OF AN INVASIVE SPARTINA.

TO THAN ORDER, TO 100 THAN PRETORNO AT IN MITTER INTERNALS.

SITE RETURNED TO AS DAMA & BURNEY PORTER IN 2007 DAMA 14. APPRIVATIO PROVIDED CONTRET FROM INV CORNER OF FESTURES, MAYING TO DESTREE QUAN EXCEPTIVE GAME SURVEY OF BRASED ON PROVIDED DAMA 14. APPRIVATIO PROVIDED CONTRET FROM INV CORNER OF FESTURES, MAYING TO DESTREE QUAN EXCEPTIVE GAME SURVEY OF BRASED ON PROVIDED PROVI

STE CONSISTS OF ABOUT 19 ACRES OF GRASSLAND AND ABOUT 1 ACRE OF WOODLAND INORTH POLYCOON), 2009 SIGHTNO AT JUNCTION OF BODGEAU ARE AND RULLA LIN, GROLE,
MAYER TO PROVIDED LOCATION RESIDENTICS OF "20 METRIS SOUTH" OF PROVIDED CONDENANTES. STE GESCHIEDE AS BEINS ADJACENT TO SCHOLLDISSERGER COUNTY PRINK ONLY A FEW HANDRED IN
MAYER TO PROVIDED CONDENSETS FOR THROSE GENERAL SHAPES ADDIALCTED AS PRINT OF AN INVASIVE SPATTINA PRIOLECT. STE NAME WAS PETALIAMA RUSER - UPPER
MEEN PRACH, MAYER TO PROVIDED STEEDING LOCATIONS.

MAPPED BY CADDS BASED ON COORDINATES PROVIDED BY ARTHUR IN THE SE 1/4 SECTION 28, POPULATION IS ON PRIVATE LAND WITHIN NORTH BAY HIGHLAND CONSERVATION BANK.

MAPPED TO PROVIDED COORDINATES.

DOWNTOWN RESIDENTIAL.

THOS GESERADD IF A POOL ABOUT 25 FT GEST
LOCATED ON 3 PRICESS OF A SEPRENTINE FROM THOSE ASSEPTIME BUT SEPRENTINE PRESENT." MAPPED ACCORDING TO 201 ARTHUR COORDINATES BUT POPULATION MAY SE
LOCATED ON 3 PRICESS OF A SEPRENTINE FROM THOSE AND THOSE NOT MAPPED ASSEPTIME BUT SEPRENTINE PRESENT." MAPPED ACCORDING TO 201 ARTHUR COORDINATES BUT POPULATION MAY SE
MAPPED ACCORDING TO A SEPRENTINE FOR POLICIAL SERVICE STREET OF A SEPRENTINE AND THOSE ACCORDING TO 201 ARTHUR COORDINATES OF A LANGE FOR POLICIAL SERVICE AND THOSE AND THOSE ACCORDING TO 201 MATHER COORDINATES.

MAPPED NOT THE SELVICE OF THE MEN HA OF SECTION 27 ACCORDING TO 201 MATHERS COORDINATES.

SITE IS LOCATED ON A 0.75-ACRE RESIDENCE AT 1237 B STREET PETALUMA, FROSS WERE FOUND IN A BACKYARD SWIMMING POOL. USPINS ADVISED THE LANDOWNER TO MOVE THE FROSS TO A NEARBY C LOCATED BETWEEN CASA GRANDE ROAD AND FRATES ROAD, SOUTH OF ELY BLYD.

ONE POOL IS LOCATED AT THE UPSTREAM PORTION OF A CULVERT AT WINDSOR DRIVE; SECOND POOL IS UNDERNEATH AN QUERCUS LOBATA; THIRD POOL IS UPSTREAM, WITH TYPHA LATIFOLIA, RUMEX CRI

ECOLOGICAL
EUCLOUICHE.
THE RECENT KNOWN DISTRIBUTION OF THE ENDANGERED SONOMA DPS FROM SANTA ROSA PLAIN IS WITHIN 20 MILES OF PETALUMA, THOUGH UNCERTAIN, IT IS POSSIBLE THAT SAMUELS COLLECTED TH
HABITIAT CONSISTS OF A SLOW-MOVING STREAM, VEGETATED BY CATTAILS AND EMERGENT VEGETATION (E.G. JUNCUS); BANKS OF MOSTLY EXPOSED SOIL WITH EASY ACCESS TO WATER. SURROUNDING A
DNE OF THE LARGEST CONTIGUOUS SALT MARSHES IN THE SAN FRANCISCO BAY AREA COASTAL BRACKISH MARSH DOMINATED BY PICKLEWEED, SOME DIKED WETLANDS, HABITAT CUALITY VARIES FROM
INABLE TO CONVERT TO CHARGISTIC CLASSIFICATION. LACKS SPP. NPO.
ABUNDANT ON EMERGENT WIGEON GRASS IRUPPIA MARITIMAI AND FLOATING ALGAE MATS (ENTEROMORPHA SPP) IN A SHALLOW POND ABOUT 0.2 METERS DEEP, COPEPODS, OSTRACODS, AMPHIPODS A
HARRIAT CONSTRUCTION OF AND SPACETIAN CALIFORNIA CALIFORNIA CALIFORNIA DE CENTRAL SPECIAL SPECIAL SPECIAL SPECIAL CALIFORNIA CALIFOR
HABITAT CONSISTS OF COASTAL SALT MARSH. VEGETATION INCLUDES SALICORNIA VIRGINICA, BRINDELIA STRICTA, SCIRPUS MARITIMUS AND DISTICHUS SPICATA, CURRENT/SURROUNDING LAND USE: AG
SABINI CONSISTS OF COASTAL SALT MARSH, VEGETATION INCLUDES SALICORNIA VIRIGINICA, GRINDELIA STRICIA, SCHIPUS MARTIMUS AND DISTRICHES SPICATA, CUPRENT/SURHICUNDING LAND USE: AL
DOCASIONAL IN LOW ALKALINE FIELDS.
N SALT MARSH.
COASTAL SALT MARSH, VEGETATION INCLUDES SALICORNIA VIRGINICA, GRINDELIA STRICTA, SCIRPUS SPP, & SPARTINA FOLIOSA, SURROUNDING LAND INCLUDES AGRICULTURAL LAND & LANDFILL. SITE QU
THIS HISTORIC OCCURRENCE IS OUTSIDE WHAT IS GENERALLY CONSIDERED TO BE THE PRESENT BREEDING RANGE OF THE SPECIES IN CALIFORNIA. "THE NEST WAS ON A LARGE WHITE-DAY, OVER A DEBO
COASTAL SALT MARSH, ASSOCIATED WITH SALICORNIA VIRGINICA, DISTICHUS SPICATA, FRANKENIA SALINA, POLYPOGON SPP, LIMONIUM CAUFORNICUM, AND CUSCUTA SALINA.
CREEK FLANKED BY DAK, MADROME & BAY FOREST IN UPPER REACHES (\$400.) TRANSITIONING TO WILLOW, DAK, & ALDER LOWER DOWN JADDES FOR TO TO PETALUMA RIV, 2016: CREEK ONCE DIVERTED, NO
COASTAL SALT MARSH DOMINATED BY SALICORNIA VIRGINICA AND SPARTINA FOLIOSA. OTHER PLANTS INCLUDE GRINDELIA STRICTA AND SCIRPUS SPP. MELOSPIZA MELODIA SAMUELIS AND CA BLACK RA
VEGETATION DOMINATED BY SALICORNIA VIRGINICA, AND ALSO INCLUDES SPARTINA FOLIOSA, DISTICHLIS SPICATA, JAUMEA CARNOSA, FRANKENIA GRANDIFOLIA, GRINDELIA HUMILIS AND BACCHARIS PIL
HABITAT CONSISTS OF A SEASONAL CREEK WITH RESTORED (10 YEARS PREVIOUSLY) RIPARIAN HABITAT.
TIDAL SALT MARSH HABITAT ADJACENT TO SEWAGE PONDS. CLAPPER RAILS ALSO DETECTED. LAND OUTSIDE OF SEWAGE PONDS IS PROTECTED BY CITY OF PETALUMA. HABITAT DOMINATED BY ALKALI BI
COASTAL BRACKISH MARSH HARITAT
MOST PRODUCTIVE AREAS TRAPPED WERE BETWEEN PICKLEWEED AND UPLAND ANNUAL GRASSLAND. THE NORTHERN MARSH WAS CONSIDERED THE BEST HABITAT.
MASS.
MANISK. TOMMMATE VERIFTATION INCLUDE SCIERY IS SP. AND PICKLEWEED
Administ E VESETALION INCLUDE SCIPPUS OF AND PRANCEWEED.
N MOIST SOIL ON HILLSIDE UNDER OAKS AND LAURELS.
IN MOLES JOUL OF RELIEF UNDER UNDER HID PURPLES. DISTOCHES AND SALLOGNIA PRESENT.
HABITAT CONSISTS OF A NARROW CORRIDOR OF ALDER RIPARIAN HABITAT, SURROUNDED BY RUDERAL GRASSLAND AND PASTURE.
SERIES OF 7 PONDS PROVIDING AQUATIC HABITAT WITH UPLAND NON-NATIVE GRASSLAND SUITABLE FOR NESTING, SURROUNDING LAND USED FOR GRAZING, RURAL RESIDENTIAL. VISIBLE DISTURBANCE
2003: HABITAT CONSISTS OF A LOW-GRADIENT FRESHWATER STREAM, WITH A SANDS/SILT/GRAVEL BOTTOM, POOLS UP TO 8' DEEP, LOTS OF DOWNED LOGS/TREES ACROSS THE STREAM, A 60-70% RIPAR.
SURROUNDING LAND USE IS URBAN.
HABITAT CONSISTS OF A TRIBUTARY WITHIN MARGINAL HABITAT (DUE TO CATTLE GRAZING).
HABITAT CONSISTS OF FLOOD CHANNEL WITH SANDY LOAM BANKS 5-7 FT HIGH. WATER FILLED WITH EMERGENTS, GRASSES AND DUCKWEED. RANA AURORA ALSO OBSERVED.
HABITAT CONSISTS OF NON-NATIVE GRASSLAND AND ROLLING HILLS OF GRASSLAND/OAK WOODLAND, SUPPOUNDING LAND USES INCLUDE PASTERLAND AND RESIDENTIAL.
RESTORED TIDAL MARSH; SUBJECT TO DAILY TIDAL INFLUENCE ALTHOUGH SOMEWHAT MUTED. THE CALL TYPE AND PHENOLOGY AS WELL AS THE APPARENT TENACITY OF THE BIRD TO A SPECIFIC SITE V. SALT MARSH DOMINATED BY SPARTINA FOLIOSA AND TILLES.
SHEERS OF 7 PONDS USED FOR BREEDING & ROAD NICES. SHEERS OF 7 PONDS USED FOR BREEDING & ROADPING PREDATORS, PONDS HAD 1-5% EMERGENT AND 10-20% ADJUNTO VEGETATION, LAND USE: GRAZING & RURAL RESIDENTIAL PONDS HAVE HIGH POP
CHANNELIZED CREEK WITH RESTORED RIPARIAN VEGETATION. SURROUNDING LAND IS A COMMERCIAL COMPLEX AND OPEN FIELD. FROGS OBSERVED ON SHORELINE OF SMALL POOL WITH UNDERCLIT BY
HABITAT IS MARSHY CHAINELS THAT BORDER THE NORTH SIDE OF THE PARK. THESE ARE HIGHLY MODIFIED RESTORED WETLANDS, ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE HIGHLY MODIFIED RESTORED WETLANDS. ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE HIGHLY MODIFIED RESTORED WETLANDS. ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE HIGHLY MODIFIED RESTORED WETLANDS. ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE HIGHLY MODIFIED RESTORED WETLANDS. ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE HIGHLY MODIFIED RESTORED WETLANDS. ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE HIGHLY MODIFIED RESTORED WETLANDS. ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE HIGHLY MODIFIED RESTORED WETLANDS. ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE HIGHLY MODIFIED RESTORED WETLANDS. ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE HIGHLY MODIFIED RESTORED WETLANDS. ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE HIGHLY MODIFIED RESTORED WETLANDS. ENCROCACHED UPON BY COMMERCIAL DEVELOPMENT FROM THE NORTH AND A PARK THESE ARE THE NORTH AND A PARK THE PARK T
HABITAT CONSTRUCT OF AN ASTROLUTURAL RESERVOIR.
SERPENTINE OUTCROP IN SERPENTINE GRASHAM.
SMALL EPHEMERAL CREEK WITH DENSE AND PATCHY WILLOW RIPARIAN. SURROUNDING LAND USED FOR GRAZING. CREEK HISTORICALLY CHANNELIZED.
ROADSIDE BORDERED BY AGRICULTURE AND URBAN LAND USE. THE CENTER MEDIAN OF HWY 101 IS A WILDLIFE BARRIER.
HABITAT CONSISTS OF A SMALL STREAM, FLOWING INTO PETALUMA MARSH, WITH SOME SALTWATER INTRUSION. WESTERN POND TURTLE ALSO FOUND AT THIS SITE.
HABITAT CONSISTS OF AN AGRICULTURAL RESERVOIR.
HABITAT CONSISTS OF AGRICULTURAL RESERVOIRS AND DRAINAGES ALONG SAN ANTONIO CREEK; CREEK IS VEGETATED BY A NARROW CORRIDOR OF ALDER RIPARIAN HABITAT, SURROUNDED BY RUDER.
NON-MATTIVE VEGETATION.
AREA SURROUNDING RESERVOIR HAS LITTLE EMERGENT/RIPARIAN VEGETATION. RESERVOIR CONTAINS LARGEMOUTH BASS AND BULLFROGS. SUITABLE BREEDING AREA ALONG NORTH SHORE; BUT GRAL
HABITAT CONSISTS OF A SEASONAL FLOOD CONTROL CHANNEL WITH SANDY / LOAM BANKS (5-7 FEET HIGH), VEGETATED BY GRASSES, OVERSTORY OF PATICHY WILLOW WHERE FROG WAS OBSERVED.
SOILS ARE THIN, SHALLOW, VERY COBBLY/GRAVELLY CLAY LOAMS. LOCATED IN CHAMISE CHAPARRAL, LEATHER OAK SCRUB, PURPLE NEEDLEGRASS GRASSLAND, AND NON-NATIVE ANNUAL GRASSLAND.
SOLES ARE THIN, SHALLOW, VERY COBBLY/GRAVELLY CLAY LOAMS, LOCATED IN CHAMISE CHAPARRAL, LEATHER DAY SCRUB, PURPLE NEEDLEGRASS GRASSLAND, AND NON-NATIVE ANNUAL GRASSLAND.
NORTH-FACING FORESTED RIDGE UNDERLAIN BY TOCALOMA-MOMULLIN COMPLEX. SOILS ARE DEEP, WELL-DRAINED, SOMEWHAT GRAVELLY CLAY LOAMS, COAST LIVE OAK WOODLAND, OREGON WHITE OF
SEEPY WET MEADOW OPENING WITHIN COAST LIVE OAK WOODLAND/CALIFORNIA BAY FOREST HABITAT. SOILS ARE DEEP, POORLY DRAINED CLAY LOAM: 30% SLOPE: ASSOC W QUERCUS AGRIFOLIA, Q. G.
GRASSLAND, FARMING, AND PUMPKIN LOT SURROUNDING HWY 101 ON BOTH SIDES.
HABITAT CONSISTS OF A PERENNIAL, ALMOST-SHADED STREAM, WITH AN AVERAGE WETTED CHANNEL WIDTH OF -1.5 METERS AND AN AVERAGE DEPTH OF 0.2 METERS; SUBSTRATE DOMINATED BY COBB
HABITAT CONSISTS OF A SLUGGISH, LOW-GRADIENT STREAM, WITH LIMITED RIPARIAN VEGETATION WITHIN A MANAGED FLOOD CHANNEL.
HABITAT CONSISTS OF DEVELOPED RESIDENTIAL PROPERTY SURROUNDED BY CATTLE RANCHES, VEGETATED BY NATIVE AND NON-NATIVE GRASSLAND, AND RIPARIAN AREAS, VEGETATED BY OAKS AND FR HABITAT CONSISTS OF A PERENNIAL POOL WITHIN A CREEK, DEPTH WAS FROM 1-3 FEET DURING JULY 2008. NARROW RIPARIAN BENCH COMPOSED OF COBBLES, GRAVEL, SIGNIFICANT RIPARIAN GROWTH
-ABITAT CONSISTS OF A PERENNIAL POOL WITHIN A CREEK DEPTH WAS FROM 1-3 FEET DURING JULY 2008. NARROW RIPARIAN BENCH COMPOSED OF COBBLES, GRAVEL SIGNIFICANT RIPARIAN GROWTH HABITAT CONSISTS OF A CONSTRUCTED POND ALONG THE HEADWATERS OF A SMALL DRAINAGE; SURROUNDED BY OAK WOODLAND, WARM-WATER FISH PRESENT, INCLUDING BASS, BLUEGILL, AND MOS
HABITAT CONSISTS OF A CONSTRUCT POLICY ACROSS OF A SMALL DEARWAYS SUFFICIENCY BY ON A FUND WHEN HE SHE PRESENT, INCLUDING BASS, BLUESLIC, AND MOST HABITAT CONSISTS OF PERSONAL POLICY POLICY POLICY POLIC
-ABITAT CONSISTS OF A CATTLE POWD (125' X 75' X 5' DEEP), VEGETATED BY WILLOWS, CATTALS, AND WATERCRESS. NON-NATIVE GRASSLANDS SURROUND THE POWD, WITH AN EPHEMERAL TRIBUTARY OF

GENERAL	THREAT
	MUCH DEVELOPMENT IN THE PETALUMA AREA SINCE 1880: SITE LIKELY EXTIRPATED.
2 COLLECTED (USIN) #4081 & 270516/ BY E. SAMUELS WIN 20 MILES OF PETALUMA BETWEEN DEC 1855 - JUL 1896. THIS IS THE 2ND COLLECTION RANGE-WIDE. & 1ST FROM THE SONOMA DPS. NONE FOUND	
Z COLLECTED (DOWN HARD) & Z COLLECTION FOR THE SOURCE OF PERILDING BETWEEN DEC. 1895 - 30L 1896. THIS IS THE ZNO COLLECTION PRINCE-WIDE, & 1ST PROBE THE SOURCE POSITION FOR THE SOURCE OF THE SOURCE POSITION FOR THE SOURCE	
ESS SET COLLECTED OF 25 MAY 1693.	
MANY HISTORIC TRAPPING RECORDS FROM THIS VICINITY. SITE PARTIALLY PRIVATELY OWNED. 2005, 2-5 SMHM OBSERVED IN NEST ABOUT 0.50 MI N OF HWY 37 BRIDGE.	MAIN DISTURBANCES/THREATS ARE FROM HUMANS, DOGS, AND CATS. SOME ORV ACTIVITY, ADJACENT SUBDIVISIONS.
WANT THIS CHALL PHYSICAL CAPACITION THE COURT HIS VALUE IT SHE PREVIOUSLE PHYSICAL P	MAIN DISTURBANCES/TRIBATS ARE FROM HUMANS, DOGS, AND CALS. SOME ONV ACTIVITY, ADJACENT SUBDIVISIONS.
SEE WITH AND	
7 DETECTED ON 1 MAY 1973; 3 TO 4 ADULTS HEARD ON EACH OF 4 SURVEYS CONDUCTED MAR & APR 2006 IN TIADAL SALT MARSH JUST W OF SEWIGE PONDS, 2-5 DETECTED ON 17 MAR & 13 APR 2009, AT LE	
40 BREEDING PAIRS LOCATED DURING A 1985 SURVEY, A TOTAL OF 9 DETECTIONS AT 8 LOCATIONS ON 12 APR AND 21 MAY 2004 COMBINED. SITE PARTIALLY PRIVATELY OWNED.	THREAT: ATTRACTION OF PREDATORS/SCAVENGERS DUE TO LANDFILL.
1 COLLECTED (CAS), 1901. 18 COLLECTED (MVZ #51599-51619, 51627, 7098), 1908. 1 COLLECTED (MVZ #83163), 1917. 4 COLLECTED (CAS), 1918. 24 COLLECTED (MVZ #51599-51619, 51627, 1927. 11 COLLECTED (MVZ #51599-51619, 51627, 51627, 51627, 51627), 1927. 11 COLLECTED (MVZ #51599-51619, 51627, 5162	
COLLECTED 1 OCT 1980.	
MALE (MVZ #119572) COLLECTED BY ALDEN H. MILLER ON 20 JUL 1949.	
ONLY INFORMATION FOR THIS SITE IS REFERENCE TO THIS COLLECTION IN 1996 FLORA OF SONOMA COUNTY. UNKNOWN NUMBER OF PLANTS SEEN IN 1987, NEEDS FIELDWORK.	
5 COLLECTED ON 3 SEP 1987.	
COLLECTIONS FROM 6 AUG 1960 AND 21 OCT 1965.	
OCCURRENCE BASED ON A SINGLE COLLECTION BY J. CONGDON IN 1880. 1992 CORRESPONDENCE BY B. GUGGOLZ INDICATES THAT SITE IS EXTIRPATED.	
COLLECTED ON LINKNOWN DATE.	
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1880 COLLECTION BY CONSDON.	
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS AN 1880 CONGIDON COLLECTION. NEEDS FIELDWORK.	
5 MALES COLLECTED ON 9 OCT 1938 BY J. VON BLOEKER (LACM #5069-5073).	
BASED ON ONE COLL. BY CONGDON (SN; U.C, G) NEAR HIS HOME IN PETALUMA. IN 1932 JOHNSTON SPECULATED THAT IT WAS EXTIRPATED BY "EXTENSIVE CULTIVATION OF LAND", SPECIMEN SHOULD BE EXA	
SITE IS BASED ON AN ANONYMOUS COLLECTION FROM AN UNKNOWN DATE, CITED IN A 1989 REVEAL ARTICLE. AT 1996 RECOVERY WORKSHOP, PARTICIPANTS AGREED THAT IT'S UNLIKELY PLANTS STILL OCC	
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1930 CRUM COLLECTION, NEEDS FIELDWORK.	
SITE BASED ON AN 1880 CONGDON COLLECTION, NEEDS FIELDWORK.	
OCCUPRENCE IS BASED ON SITE NAME GIVEN IN A 2017 MORGAN REPORT, UNKNOWN WHEN PLANTS SEEN. THIS IS AN UNDESCRIBED WAR. OF T. POLYDDON, CALLED "WAR. OLIGODON" BY R. MORGAN. NEED	
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1945 HOWELL COLLECTION, NEEDS FILEDWORK.	
ONLY SUDPLE UP REPURBINGEN OF IN THIS SHE IS A 1994 DEVINED. COLLECTION. RESERVED. FOR THE STREET OF	PREDATORS ATTRACTED BY THE LANDELL
EGGISI COLLECTED BY E. SAMUELS DURING HIS COLLECTING PERIOD FROM DEC 1855 TO JULI 1856.	
EGGIS CULLECTED BY E. SAMUELS DURING HIS CULLECTING PERIOD FROM DEC 1865 TO JUL. 1866. COLI ECTER DISK 3.4 MIG 1967.	
COLLECTED UN 31 AUX 1983. 1875 PLANTS OBSERVED IN 1993. COLLINS HAS SEEN THIS SPECIES AT OTHER NEARBY LOCATIONS IN PREVIOUS YEARS; NOT FOUND AT THOSE LOCATIONS IN 1993 BY PUGYT. 1980 COLLECTION BY BALLING.	CITE ALADEA OF DEALLOT CITE (CITE (CITE (CITE (ALADEA)))
19/5 PLANTS DESERVED IN 1985. CURRING PROS SEEN THIS SHEDES AT DITHER REARPY LOCATIONS OF HEAVIOR YEARS, NOT HOUND AT THOSE COCATIONS IN 1985 BY HUGY I. 1989 COLLECTION BY BALLING. OBSERVATIONS MADE ALONG THE STREAM REACH FROM 1986 TO 1997. 3 ADULT SAN 10 JUVENILES OBSERVED ON 8 APR 2016.	POACHING, LITTER, HABITAT DESTRUCTION, LANDSLIDES, WATER DIVERSIONS, FERTILIZER RUNOFF (1997), DEVELOPMENT (1997, 2016)
	THE MARSH IS VERY NARROW, AND POSSIBLY THREATENED BY DEVELOPMENT PRESSURES.
14 COLLECTED IN 1918 & 1 COLLECTED IN 1921 & 1922 (CAS), PLOTS SURVEYED BINEEKLY APR-JUN AND AUG-OCT, 1981. MEAN NESTING PAIR DENSITY (NJHA) FOR 7 MAR 1981: NATURAL CHANNEL, 24.5+/-4; S	
COLLECTED FROM VICINITY IN 1940. 1 ADULT FROG OBSERVED ON 14 APR 1997, BY 10 JUN 1997 "LOTS" OF FROGS WERE FOUND. 1 FROG OBSERVED IN 1998.	THREATS INCLUDE RUN-OFF FROM ADOBE CREEK GOLF COURSE AND CULVERT CLEARING.
1-2 ADULTS HEARD ON 3 OF 4 SURVEYS CONDUCTED IN MARCH & APRIL 2008. 4-5 DETECTED ON 4 MAR 2011; EXACT LOCATION UNK, BUT WITHIN LARGER MASH. AT LEAST 1 DETECTED AURALLY ON 21 FEB AI	1
ONE BRIEDING PAIR LOCATED DURING A 1985 SURVEY.	
NUMEROUS SPECIMENS COLLECTED AT MCNEAR BRIDGE AREA BETWEEN 1927 AND 1940. 19 TRAPPED IN 915 TRAPNIGHTS NOV-DEC 1990. SALT MARSH YELLOW THROAT AND CALIFORNIA BLACK RAIL ALSO	
2 DETECTED FROM GAMA1, 3 FROM GAMA2, 4 FROM GAMA3, 2 FROM GAMA4, 1 FROM GAMA5 & 1 FROM GAMA6 ON 8 MAY 2007. 2 ESTIMATED FROM DETECTIONS ON 12 APR 2008. 1 DETECTED DURING POINT	
DETECTED ON 16 FEB AND 8 APR 2010. 1 DETECTED ON 2 APR 2012. 2 RESPONDED TO BROADCAST 24 MAR 2014.	
CONSIDERED "LOCALLY PLENTIFUL ON ROADBANK" IN 1989; EXTERMINATED IN ADJACENT PASTURE. 1921 TRACY COLLECTION FROM "NEAR PETALUMA ON LOW, RICH FIELDS" ATTRIBUTED TO THIS SITE.	
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1982 GOOD COLLECTION, QUESTIONABLE IDENTIFICATION ACCORDING TO CHARLES QUIBELL.	
SEEN IN SAN ANTONIO CRIK MARSH IN 1977-1-2 PLANTS IN 1978. NONE IN 1982, 1988, OR 1993. SOME SUITABLE HABITAT STILL EXISTS. RUYGT SUGGESTS THAT THIS OCCURRENCE MAY BE A MIS-ID; C. MARIT	THREATENED BY FILLING
DRLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1916 COLLECTION BY HALL NEEDS FIELDWORK.	THERE HAS BEEN EXTENSIVE DEVELOPMENT IN THIS VICINITY.
SITE IS DESPADED BY PAST AGRICULTURAL PRACTICES, A DOULTS WERE OSSERVED ON B JUN 1994. ALTHOUGH NO JUVENLES WERE OSSERVED LANDOWNER REPORTS THAT THE TURTLES ARE REPRODUCE.	
SITE IS DEGRALED BY PAST ASSIGNATIONAL PRACTICES. 4 ADDITS WERE DISSERVED ON SUIN THAT, ADDITIONAL DEGRALED BY PAST ASSIGNATIONAL PRACTICES. 4 ADDITS WERE DISSERVED ON SUIN THAT, ADDITIONAL PRACTICES ARE REPRODUCT. 30 ADDITES AND IS JUVENILES OBSERVED BASING AND FLOATING IN FOUR PROMS ON 25 JUL 2016.	VINEYARD ENCROACHMENT
A PR 2003: 4 ADULTS, INCLUDING 3 LARGE MALES AND 1 LARGE FEMALE; OBSERVED. 2003 MAPPED AS A. MARMORATA. 2008 REMAPPED AS A. MARMORATA MARMORATA 26 JUL. 2007: 1 ADULT OBSERVED IN	
143 CAPTURED; FORK LENGTH RANGE: 90-315 MM; MAJORITY IN 2 AGE GROUPS: 60-70 MM AND 140-180 MM. FISH RELOCATED UNDER EMERGENCY PERMIT FROM USPWS.	FISH WERE FOUND IN DEWATERED REACH DURING USAGE FLOOD CONTROL PROJECT.
ON 2 JUN 1998, 1 ADULT FOUND IN AN ABANDONED 4-FT DIAMETER BRICK WELL ADJACENT TO THE TRIBUTARY. 4 ADULTS FOUND IN A PERENNIAL POOL ALONG THE CREEK ON 18 SEP 2001. A COLLECTION W.	
	THREAT INCLUDES PROPOSAL TO CLEAR CHANNEL OF DEBRIS AND BRUSH.
9 ADULTS (POSSIBLY SOME OLDER JUVENILES, 5 IN) AND 1 JUVENILE (35 MM CARAPACE LENGTH).	
SITE HAS BEEN OCCUPIED BY BADGERS FOR AN ESTIMATED 100 YEARS BY LOCAL RESIDENTS; CURRENT DENS, TRAILS, AND FORAGING AREAS MAPPED IN 2003. AN ADULT FEMALE FOUND EMACIATED AND H	THREATENED BY PROPOSED DEVELOPMENT, TRAFFIC, AND HUMAN & DOG ACTIVITIES.
SITE HAS BEEN COCUPIED BY BADGERS FOR AN ESTIMATED 100 YEARS BY LOCAL RESIDENTS; CURRENT DENS, THALS, AND FORMAING AREAS MAPPED IN 2003, AN ADULT FEMALE FOUND EMACIATED AND H1-2 BROS AURALLY DETECTED ON 3 APR 2012; "KLIRP" CALL HEARD SEVERAL TIMES IN RESPONSE TO BROADCAST TAPED "KIK-KIK-KERR" VOCALIZATION.	THREATENED BY PROPOSED DEVELOPMENT, TRAFFIC, AND HUMAN & DOG ACTIVITIES. FERAL CATS AND RAPTORS.
SITE HAS BEEN COUPLED BY BEGINS FOR AN ESTIMATED BY SAVES BY LOCAL PERSONNE, CUPRENT CRISI, THAILE, AND FORWARD AREAS MAPPED IN 2005, AN ADULT FEMALE FOUND BIMCHITCH AND I- 1-2 BROSS AMPAILY EXECUTED ON 3 APP 3 2012, "NAPP" CALL HEAVED SERVEN, INSERT SERVICES TO SERVICE AND	FERAL CATS AND RAPTORS.
SITE HAS BEEN COCUPIED BY BADGERS FOR AN ESTIMATED 100 YEARS BY LOCAL RESIDENTS; CURRENT DENS, THALS, AND FORMAING AREAS MAPPED IN 2003, AN ADULT FEMALE FOUND EMACIATED AND H1-2 BROS AURALLY DETECTED ON 3 APR 2012; "KLIRP" CALL HEARD SEVERAL TIMES IN RESPONSE TO BROADCAST TAPED "KIK-KIK-KERR" VOCALIZATION.	
SITE HAS BEEN OCCUPED BY MADDERS FOR AN ESTIMATED 100 YEARS BY LOCAL RESCENTS, CURRENT DENS, TRAILS, AND FORMAGING, AREAS MAPPED IN 2003, AN ADULT FEMALE FOUND BIAGORITED AND H- 1-2 BRIDGS, AND AUTURE TEXTED ON 3 APR 2012; "MERP" CALL HEADS BEFENDE, TIMES IN RESPONSE TO BRIDGACCAST TAPED "MCK.REV.RESR" VOCALUSTION. 2 AURILES ENTENDE MECO ON 3 FEB 2014 HOUSE WARMEN STANKES SERVICES STANKES, AT LEAST 1 AURILLY DETECTED ON 18 MAR 2015. 2 AURILES AND 27 YOUND GN-TEAT GREENWED IN 3 FORMES ON SAUGE 2018.	FERAL CATS AND RAPTORS.
SITE HAS BEEN OCCUPED BY MADDERS FOR AN ESTIMATED 100 YEARS BY LOCAL RESCENTS, CURRENT DENS, TRAILS, AND FORMAGING, AREAS MAPPED IN 2003, AN ADULT FEMALE FOUND BIAGORITED AND H- 1-2 BRIDGS, AND AUTURE TEXTED ON 3 APR 2012; "MERP" CALL HEADS BEFENDE, TIMES IN RESPONSE TO BRIDGACCAST TAPED "MCK.REV.RESR" VOCALUSTION. 2 AURILES ENTENDE MECO ON 3 FEB 2014 HOUSE WARMEN STANKES SERVICES STANKES, AT LEAST 1 AURILLY DETECTED ON 18 MAR 2015. 2 AURILES AND 27 YOUND GN-TEAT GREENWED IN 3 FORMES ON SAUGE 2018.	FERAL CATS AND RAPTORS. CONVERSION TO VINEWARDS.
SIT HAS BEEN COLUMNED OF MEMORISM FOR AN ESTIMANT 10 VIVIANS BY LOOM, RESIDENTS, CLIMBRIT CERN, THAIR, AND FORMANIN, ARRESS MARTON 3003, AN ADULT TERMLE FOLIND BANCARTO AND 1-2 BRIDGS ADULT VERTICATED ON 18 APR 1010; "PLAPE" OLILL PRICED SERVINE THE SERVINE TO BENDRESS ADULT SERVINE AND TO YOUNG OF "PERSON GENERALD IN POLICIES CONTROLLED AND ADULT SERVINE AND TO YOUNG OF "PERSON GENERALD IN POLICIES CONTROLLED AND ADULT SERVINE ADULT SERVINE AND ADULT SERVINE	FERNL CATS AND RAPTORS. CONVERSION TO VINEYARDS. FREQUENT DISTURBANCE FROM PLOOD CONTROL ACTIVITIES AND SURROLINGING URBANIZATION.
SITE HAS BEEN OCCUPED BY BADDERS FOR AN ESTIMATED 100 YEARS BY LOCAL RESIDENTS, CURPENT DESIG, THALE, AND FORMATION AREAS MAPPED IN 2003, AN ADULT FEMALE FOUND BIAGASTED AND 1-2 BRODADAST PRED**—WAS AREAST*—VOCALDITION. 2 AND ALE PRETENDED AND AND 1975 THAT AREAS OBSERVED. THE SIN RESPONSE TO BRODADAST PRED**—WAS AREAST*—VOCALDITION. 2 AND ALE PRETENDED AND 1975 THAT AREAST*—A SERVED AND 1975 THAT AND 1	FERMA, CAS AND RINFORDS. CONVERSION TO VINEWAYDE. PROCIATO SERVING PROVINCE ACTIVITIES AND SUPPOUNDING UPBANAZATION. BOTTO: THE SUPPOSIT AND SUPPOSITION ACTIVITIES AND SUPPOUNDING UPBANAZATION. BOTTO: THE SUPPOSITION SUPPOSITION SUPPOSITION ACTIVITIES AND SUPPOUNDING UPBANAZATION.
SIT HAS BEEN COCUPED OF MADDERS FOR AN ESTIMATE BY VIGAR BY LOOK, RESIDENTS, CURRENT CRIN, THAS, AND FORMANIA PERSON MAPPED 3003, AN AQUI, TERMALE FOLID BIANCANTO AND 1- 2 AREAS, AREAS AND TOWNS AND THE STATE OF THE STATE AND THE S	FERMA, CAS AND RINFORDS. CONVERSION TO VINEWAYDE. PROCIATO SERVING PROVINCE ACTIVITIES AND SUPPOUNDING UPBANAZATION. BOTTO: THE SUPPOSIT AND SUPPOSITION ACTIVITIES AND SUPPOUNDING UPBANAZATION. BOTTO: THE SUPPOSITION SUPPOSITION SUPPOSITION ACTIVITIES AND SUPPOUNDING UPBANAZATION.
SIT HAS BEEN COCUPIED OF RESIDENT FOR ALL STEMANTS ON YEARS BY LOOK, RESIDENTS, CURRENT CRISE, TRUES, AND FORMADIO AREAS, MAPPED 9000, AN ADULT TERMAL FOUND RAMCHATO AND IT. 2 AURILL SETECTIONS MADE ON 21 FEB 2014 DURING WILLIAMS TRANSPECT AND IT. AND IT. AS RESIDENCE OF THE ORDINACIA THEM PROPERTY AND IT. 2 AURILL SETECTIONS MADE ON 21 FEB 2014 DURING WILLIAMS TRANSECT SURREYS, AT LEAST 1 AURILLY DETECTED ON 18 MAP 2015. 2 AURILL SETECTIONS MADE ON 21 FEB 2014 DURING WILLIAMS TRANSECT SURREYS, AT LEAST 1 AURILLY DETECTED ON 18 MAP 2015. 2 AURILL SECRETOR ON WAY 2011. ADULT AND 2 EXECUTE SURREYS ON 19 MAP 2015. 2 AURILL SECRETOR ON WAY 2011. ADULT AND 2 EXECUTE SURREYS ON 19 MAP 2011. DESCRIPTION 19 AURILLY DESCRIPTION 1	FERMA, CAS AND RINFORDS. CONVERSION TO VINEWAYDE. PROCIATO SERVING PROVINCE ACTIVITIES AND SUPPOUNDING UPBANAZATION. BOTTO: THE SUPPOSIT AND SUPPOSITION ACTIVITIES AND SUPPOUNDING UPBANAZATION. BOTTO: THE SUPPOSITION SUPPOSITION SUPPOSITION ACTIVITIES AND SUPPOUNDING UPBANAZATION.
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SIT HAS BEEN COURSED OF SECURITY STATEMENT ON VARIEN BY LOOK, RESIDENTS, CURRENT CRIS. THASE, AND FORMADIN AREAS MAPPED 1000, AN ADULT TERMAL FOUND BANCANTO AND INCIDENT CRIS. THASE AND FORMADIN AREAS MAPPED 1000, AN ADULT TERMAL FOUND BANCANTO AND INCIDENT CRIS. STATEMENT AND INCIDENT CRIS. AND I	FERMA CAST AND RINFORDS. CONVERSION TO VINEWADDS. FROMENT DESIGNATION FLOOD CONTROL ACTIVITIES AND SUPPOUNDING UPSNAZZATION. BOTTO: THE SURFRING PLOOD CONTROL ACTIVITIES AND SUPPOUNDING UPSNAZZATION. BOTTO: THE SURFRING PLOOD CONTROL ACTIVITIES AND SUPPOUNDING UPSNAZZATION. FROMENT SUPPOUNDING PLOOD CONTROL OF CONTROL ACTIVITIES AND SUPPOUNDING UPSNAZZATION. PROSERVED PRINTED VINEY OF CONTROL OF CO
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BIT HAS BEEN COURSED OF SECURITY STATEMENT ON VARIEN BY LOOK, RESIDENTS, CURRENT CRIS. THATE, AND FORMADIN AREAS MAPTED 1000, AN ADULT TERMAL FOUND RANCHTO AND IN- JURIAL SECTIONS WERE CONTROLLED AND AREAS OF THE OWNER CALL SHARE SECURITY. AND IN RESPONSE OF THE ORGANIZATION OF THE OWNER CALL SHARE SECURITY AND ADDRESS OF THE OWNER CALL SHARE SHARE AND ADDRESS OF THE OWNER CALL SHARE SHA	FERMA COST NO MEMORIS. CONVERSION TO VINEWARD. FROIGHT DISTURBANCE FROM FLOOD CONTROL ACTIVITIES AND SUPPOUNDING UPBANZZETON. BOTTO: THE SURFER SULPERS PRESENT. FREETINGS BY PROPOSED VINEWARD OPWARDON, STREAM WILL BE PROVIDED AS A SITEMON AND POACE WILL BE EXPRINDED. POSSIBLE PROLITIONS. ADMINISTRATION OF THE PROVIDED AS A SITEMON AND POACE WILL BE EXPRINDED. THE CATEGORY OF WINDSTRUCTURE TREATMENT FLANT EXPRINDION. THE CATEGORY OF PROPOSED VINEWARD DEPARADON, STREAM WILL BE PROVIDED AS A SITEMON AND POACE WILL BE EXPRINDED. THE CATEGORY OF PROPOSED VINEWARD DEPARADON, STREAM WILL BE PROVIDED AS A SITEMON AND POACE WILL BE EXPRINDED.
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SIT HAS BEEN COLUMNED OF SECURITY STATES OF STATES OF YOUR RESIDENTS, CURRENT CERE, THATE, AND FORMADIN AREAS MAPTED 1000, AN ADALT TERMAL FOUND RANCONTO AND ADALT TERMAL FOUND RANCONTO ADAL	FERMA COST AND INSPIRED. CONVERSION TO YMERWADE. FROIGHT DISTURBANCE FROM FLOOD CONTROL ACTIVITIES AND BURROUNDING UPBANZZETON. BOTTO: THE SAMPO BULDERS PRESENT. FREETRIEDS BY PROPOSED VINEARING DEPARMENCE. FROSBILLE FROILEDS. VEHICLE COLLEGORS. ARREPORT. VEHICLE COLLEGORS. ARREPORT. VEHICLE COLLEGORS. ARREPORT. FROM WITHOUT PROPOSED VINEARING DEPARMENCE. THE CATING BY PROPOSED VINEARING DEPARMENCE. THE CATING BY PROPOSED VINEARING DEPARMENCE. THE CATING BY PROPOSED VINEARING DEPARMENCE. STEMAN WILL SE PROVIDED AS A SETEMON AND PORCES WILL BE EXPANDED. THE CATING BY PROPOSED VINEARING DEPARMENCE. STEMAN WILL SE PROVIDED AS A SETEMON AND PORCES WILL BE EXPANDED. THE CATING BY PROPOSED VINEARING DEPARMENCE. STEMAN WILL SE PROVIDED AS A SETEMON AND PORCES WILL BE EXPANDED. THE CATING BY PROPOSED VINEARING DEPARMENCE. FROM THE CATING BY PROPOSED VINEARING DEPARMENCE. THE PROVIDED AS A SETEMON AND PORCES WILL BE EXPANDED. THE PROVIDED AS A SETEMON AND PORCES WILL BE EXPANDED.
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THREATLIST	LASTUPDATE	AREA	PERIMETER	AVLCODE	
Development	20200703	303895230.8	71530.80344	99912	0
	20141112	201051721.9	50264.84445	21001	0
	20111206	201051719.3	50264.844	21001	3.893976113
	20040204	151947286.4	49660.90904	99901	0
Development; ORV activity; Other	20150226		39915.38494	20303	1.758081157
	20000120	20584793.24	39915.38494	30303	1.758081157
	20121203	20584793.24	39915.38494	20303	1.758081157
	20150911	10221517.23	16219.24922	20301	1.634973086
Landfil	20050204	9239924.347	22818.77343	20301	1.758842754
	20050419	8042068.898	10052.9689	20901	0
	20151210	8042068.818	10052.96885	20901	3.074052364
	20040930	8042068.815	10052.96885	20901	1.582104069
	20040825	8042067.242	10052.96821	10901	3.861381953
	20180411	8041668.925	10052.84377	20901	4.181181512
	20151210	8007705.943	10044.12068	20912	0
	20080102	8007705.943	10044.12068	10912	0
	20161208	8007705.943	10044,12068	20912	0
	19960507	8007705.943	10044.12068	10912	0
	20140822	8007705.943	10044,12068	10912	
	20140529	8007705.943	10044,12068	20912	0
	19941012	8007705.943	10044.12068	10912	0
	20160606	8007705.943	10044.12068	10912	0
	20180109	8007705.943	10044.12068	10912	0
	20180109			10912	0
	20180220		10044.12068	10912	0
	20181214 19890811				4.841194409
		8007670.556	10044.10748	10901	4.841194409 3.289810565
	20170328	7931234.206	18995.19798		
	20141107	7551675.067	16591.15132	20301	2.69466687
	20200909	5781464.333	38772.04175	20301	4.795487741
	20000114		6283.154181	10701	4.223567123
Development; Erosion/runoff; Other; Over-collecting/poaching; Surface water diversion; Vandalism/dumping/litter	20160823		23980.66972	20301	0.780253117
Development	20150928	1251620.92	22803.27469	20301	4.64277149
	20050330	1130890.878	3769.842451	20601	4.252375682
Erosion/runoff	20190325	991697.7465	12471.06836	20301	2.251852042
	20170125	745996.1614	3429.463838	20301	1.838523442
	20000120	578241.2618	3753.896786	20302	0.343180672
	20150227	578241.2618	3753.896786	20302	0.343180672
	20170125	324516.2995	3242.123416	20301	2.006389389
	20150911	303220.0096	2440.448677	20301	0.617301342
	20110816	290945.0709	3884.514104	10302	1.337492052
	20140321	290945.0709	3884.514104	10302	1.337492052
Other	20130605	281519.114	1883.266656	10501	4.760689503
Development	20081120	280309.6611	3755.828475	10301	4.008000594
Agriculture	20021119	187814,7307	2588,996153	20201	3.656444928
Agriculture	20170405	172687.2711	1693.421331	20201	2.047563747
	20080225	168624 7421	2354,788075	20201	2 102566482
Altered flood/tidal/hydrologic regime; Surface water diversion	20000502	148862.5572	2111.749815	20201	1.276547405
Development; Grazing; Non-native animal impacts	20190919			20301	2.305152762
Other	20011016		1536,713954	20301	3.230401443
Development	2011016	71435.60642	1525.149143	20201	2.112165442
Non-native animal impacts; Other	20170119	70685 16679	942 4754353	20401	1,455740414
non-naive animal impacts, other	20170119	70685.16679	942,4754353	20401	0.795684486
Agriculture	20170405	60218.63211	1507.339564	20201	2.178929131
Altered flood/tidal/hydrologic regime; Development	20190703		988.1293805	20201	1.245499648
	20080505		950.5667638	20301	1.15965369
Agriculture	20021104	26400.32991	789.757791	20201	4.27406029
Grazing	20200123	20105.9731	502.6743897	10101	4.787801926
	20180516	20105.88305	502.6530409	20101	4.570067708
Agriculture; Vehicle collisions	20170106		502.6525662	20101	2.281115846
Development	20070510		502.1718435	20101	2.212148276
Agriculture	20021119	20023.4709	502.1382455	20101	4.099310299
Agriculture	20020905	20023.46746	502.1382044	20101	3.964128011
Other	20000829	20023.39326	502.1372717	20101	0.305054464
Non-native animal impacts	20011015	20023.35169	502.1367507	20101	4.939182912
Channelization	20010809	20023.34723	502.1366929	20101	3.311905373
Non-native plant impacts	20140721	20023.32626	502.136431	10102	4.772253745
Non-native plant impacts	20180424	20023.32626	502.136431	10102	4.772253745
	20150717	20023.32622	502.136431	10102	3.451772218
		20023.32622	502.136431	10102	3.451772218
	20150618		502 1364268	20101	4.94527078
Agriculture: Read/brail construction/maint.	20150618	20023.32514			1.09306443
Agriculture; Road/Irail construction/maint. Biociese; Pollution		20023.32514	502.1364014	20101	
Biocides; Pollution	20071217 20050629			20101	4.380283417
Biocides; Pollution	20071217 20050629 20070606	20023.32453 20023.32449	502.1364014	20101	
Biocides; Pollution Road trail construction/maint.	20071217 20050629 20070606 20070823	20023.32453 20023.32449 20023.3244	502.1364014 502.1364014	20101 20101	4.380283417 1.420900201
Biocides; Pollution Road trail construction/maint.	20071217 20050629 20070606 20070823 20090313	20023.32453 20023.32449 20023.3244 20023.32432	502.1364014 502.1364014 502.1364014	20101 20101 20101	1.420900201
Boolder, Polution Read-folial construction/maint. Other: Recreational use (non-ORV)	20071217 20050629 20070606 20070823 20090313 20041108	20023.32453 20023.32449 20023.3244 20023.32432 20023.32432	502.1364014 502.1364014 502.1364014 502.1364014	20101 20101 20101 20101	1.420900201 1.544505105 2.086193086
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Becoles, Paladian Control Reconstruction invitet Other Reconstruction at all pron-ORN) Development	20071217 20050629 20070606 20070823 20090313 20041108 20070725	20023.32453 20023.32449 20023.3244 20023.32432 20023.32432 20023.32386 20023.32386 20023.32386	502.1364014 502.1364014 502.1364014 502.1364014 502.1364014 502.1364014 502.1364014	20101 20101 20101 20101 20101 20101 20101	1.420900201 1.544505105 2.086193086 2.029550305